





## **ACKNOWLEDGEMENTS**

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The City of Charleston is made up of geographic parts as unique as the people who live in them and bound by the natural features of the Lowcountry. It is a city of diverse neighborhoods. It is a community shaped as much by its past as its aspirations. Ever evolving, the population of Charleston is a blend of people from various ancestry, culture, language, economic means and types of education, but all sharing a strong sense of history and place.

Over the last ten years, Charleston has seen economic growth and an increase in population, and has received numerous accolades for its job creation, livability and tourism. The influx of new jobs and people have also added more cars to already congested roadways. Additionally, high costs of living and worsening income disparities have made it harder to lower-income and nonwhite residents to stay, leading to a rapid gentrification of a historically ethnically and socially diverse city. Exacerbating it all, the impacts of sea level rise and extreme weather events have added increasing pressures on the built environment and a profound effect on public safety, economic viability, and overall quality of life.

The Charleston City Plan is the City of Charleston's new 10-year comprehensive plan to guide land use planning, policy and investment through 2030. It serves as the city's roadmap toward a more resilient and equitable future – shaped by the values and priorities of its community and rooted in its wealth of cultural and natural resources.

#### WHAT IS A COMPREHENSIVE PLAN?

Comprehensive Plans are statements of community values and goals concerning the existing and future environment. They and recommendations for the following serve as a guide for decision makers and a dynamic tool for managing community change to achieve a desired quality of life. Per the 1994 State Comprehensive Planning Act (SC Code Title 6, Chapter 19), the State of South Carolina requires that municipalities regularly evaluate and update their comprehensive plans, which serve as foundational documents for regulatory and other policy tools such as zoning codes and subdivision site design standards. Comprehensive Plans are steered by the Planning Commission and adopted by City Council.

The Charleston City Plan is intended to be a tool and resource for a variety of users. It informs daily decisions made by city staff, Planning Commission and City Council. It also serves as a guide and reference for residents, local businesses, community organizations, neighboring jurisdictions, developers, and many others who are part of the greater Charleston community.

The primary tools used in a comprehensive plan are the list of key recommendations for each element and the Future Land Use maps. Detailed strategies and timeframes for recommendations are formulated in supplemental plans and studies that have either already been adopted or will be created in the 10-year period.

The Charleston City Plan addresses existing conditions, community priorities key elements:

- I. POPULATION
- II. NATURAL RESOURCES
- III. CULTURAL RESOURCES
- IV. ECONOMIC DEVELOPMENT
- V. TRANSPORTATION
- VI. COMMUNITY FACILITIES & PRIORITY **INVESTMENT**
- VII. HOUSING
- VIII. LAND USE
- IX. RESILIENCE & EQUITY

The Charleston City Plan will influence planning and policy decisions relating to each of these elements over the next ten years. Some decisions may have an immediate impact, while others may take longer to see the tangible outcome. The plan document itself does not change any existing zoning laws or other regulations and it does not make recommendations on taxation. Any changes made to the zoning ordinance and other policies to implement plan recommendations will only impact new development. With limited exceptions, development plans that already have the required approvals will not be subject to changes in codes or regulations that stem

from this plan. This means that some development breaking ground in the next ten years may not be consistent with the priorities and recommendations in this plan if they received their approvals in previous years.

RESILIENCE WAS ADDED TO THE LIST OF REQUIRED ELEMENTS IN 2020. THE CHARLESTON CITY PLAN EXPANDS ON THIS REQUIREMENT BY ADDRESSING EQUITY AND INTERDEPENDENT GOALS. BOTH RESILIENCE AND EQUITY ARE INTERWOVEN THROUGHOUT THE PLAN AND SUMMARIZED IN THE FINAL RESILIENCE AND EQUITY ELEMENT.

#### WHAT AREAS ARE INCLUDED IN THE PLAN?

The Charleston City Plan makes recommendations primarily for areas of the city within the Urban Growth Boundary (UGB), including portions of Peninsular Charleston, West Ashley, James Island, Johns Island, Wando and all of Daniel Island. The plan area also includes currently unincorporated areas that are within the geography defined by the Urban Growth Boundary.

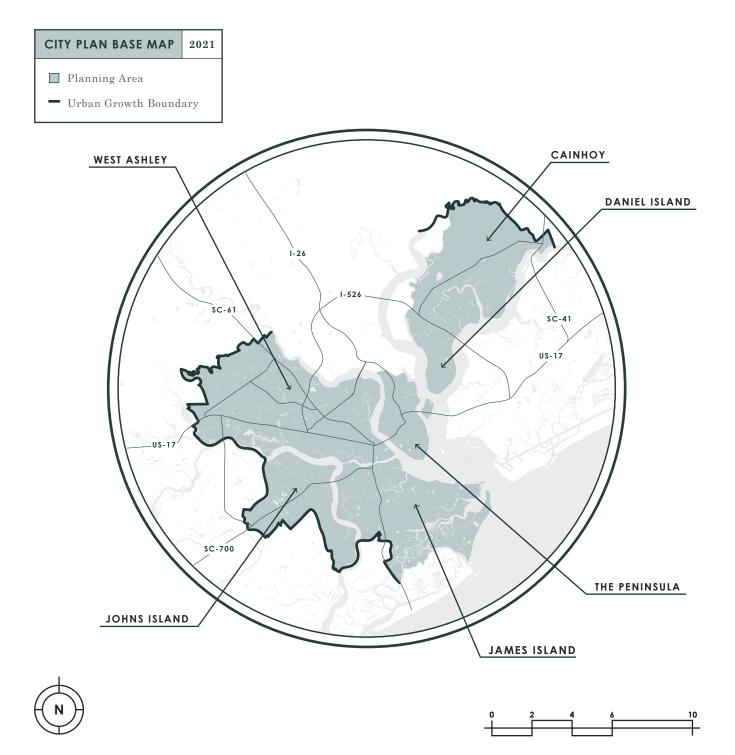
The five areas of the city, all separated by the waterways that define the Lowcountry lifestyle, are each distinct and unique in their natural, social and cultural environments. The plan both responds to citywide priorities – flooding, affordability, connectivity, access

to nature, resilience and equity – as well the unique characteristics and challenges of all five areas.

Charleston Peninsula. The Peninsula is loved by residents and tourists alike for its historic buildings and scenic views of the harbor. It has a diversity of unique residential communities, a vibrant commercial center, and a rich arts, culture and food scene. It is a place for activity and connection. Future quality of life on the Peninsula will depend on integrated solutions to flooding, a safer and less crowded street network, more affordable housing costs, and equitable investment in historic neighborhoods.

West Ashley. West Ashley is prized for its community-oriented suburban neighborhoods, assortments of parks and recreation facilities, and the wealth of amenities and services available for its residents. Its diversity and affordability attract people from all backgrounds and lifestyles. Future quality of life in West Ashley will depend on improved connectivity, a thriving local economy, and preservation of affordability and diversity.

Cainhoy Peninsula. Cainhoy Peninsula refers to the geographic area of Charleston that includes the communities of Wando and Daniel Island. The most beloved qualities of Wando and Daniel Island are the country environment, connection with the land and nature, and sense of community. This area is rich in cultural and natural resources:



Marion National Forest, longleaf pine forests and wetlands. With the recent and future development along Clements Ferry Road, quality of life for the Wando area will depend on improved connectivity and improved access to the wealth of cultural and natural resources.

James Island. James Island is celebrated for its small town feel, made up of an eclectic mix of diverse and tight-knit communities. Residents treasure the connection with the natural landscape, especially the old trees, surrounding marshes and water. Future quality of life for James Island residents will depend on flooding solutions, enhanced connectivity, and improved coordination between Charleston County, the Town of James Island and the City of Charleston.

Johns Island. Johns Island is a rural community. It is important to residents to maintain their connection with both its rich history - where "every place has a story;" - and beautiful nature - where "life can't be stopped." Future quality of life for

protection and preservation of the island's heritage and environment, improvements to outdated infrastructure (namely roads and stormwater management), improved connectivity, and increased access to parks and recreation.

#### **TOWARD A MORE RESILIENT** AND EQUITABLE FUTURE

When the planning process began, the City of Charleston was at a major crossroads in its history. In addition to the existential threat of rising seas and a changing climate, the city was also reeling from a series of painful reminders of the historic and existing racial injustices that continue to plague the city, region and nation. Furthermore, the plan was developed in the wake of a global pandemic that mounted a steep death toll and caused serious economic repercussions; and a historic election season that highlighted deep divisions in our communities.

The Charleston City Plan presented an opportunity to respond to these intersecting

#### **CHARLESTON CITY PLAN GUIDING PRINCIPLES**



#### WATER FIRST

anchored in where water is and where water is going to be



#### DATA SMART

using the best data available to understand the challenges facing the City



#### STRENGTH IN DIVERSITY

oriented toward actions that protect our City's historic diversity



#### COMMUNITY EMPOWERED

asking all members of the community to partner in the planning process

These principles are exemplified by the emphasis given to flooding and housing challenges, as well as a robust community engagement campaign, throughout the plan process. The same team of consultants that produced the Dutch Dialogues Report were hired to complete a citywide Land and Water Analysis to guide how the city can better manage water and prepare for sea level rise. Additionally, Community Data Platforms was contracted to provide the best data available on the city's housing stock and highlight the areas of greatest need in terms of housing costs - one of the lead factors contributing to gentrification and displacement. A third team of consultants assisted the staff team to facilitate the most robust and inclusive community engagement campaign than any previous comprehensive planning process. Engagement activities included community meetings specific to housing and water to provide additional insight and potential strategies to address the city's greatest challenges.

and overlapping challenges, and chart a pathway for the city toward a more resilient and equitable future. Four guiding principles – Water First, Data Smart, Community Empowered and Strength in Diversity – shaped the creation of the Charleston City Plan. Additionally, a framework for resilience and equity was applied throughout all plan elements.

#### FRAMEWORK FOR RESILIENCE AND EQUITY

In 2020, state legislation added Resilience to the list of required elements to be included in the comprehensive plan; for communities to consider the impacts of flooding, high water, and natural hazards on individuals, communities, institutions, businesses, economic development, public infrastructure and facilities, and public health, safety and welfare. The Charleston City Plan has also added equity as a key element of the plan. Both resilience and equity are interwoven throughout the plan and summarized in the final chapter: Resilience and Equity element.

The following core beliefs shape the Resilience and Equity framework interwoven throughout the Charleston City Plan.

- 1. An agenda to build resiliency of a community must begin with achieving equity through a racial equity lens; and all strategies should prioritize addressing existing disparities and protecting vulnerable communities from any unintended negative impacts of new policies or investments.
- 2. There are existing disparities that deny certain communities equal access to opportunities and healthy environments; and increase their vulnerability to disasters.
- 3. Communities are inherently stronger and more resilient when we can meet the unmet needs of all community members.

#### **CENTURY V AND OTHER PLANS**

The Charleston City Plan replaces the Century V Plan, first adopted in 2000 and later revised in 2010. The Charleston City Plan builds on the Century V Plan and weaves the research and recommendations from a host of recent plans and studies together to create one unified vision for the future of Charleston. Other adopted plans and studies include (by order of publication):

ONE CHARLESTON, PARKS & RECREATION MASTER PLAN

(2021)

**CLIMATE ACTION PLAN** (2021)

ALL HAZARDS VULNERABILITY AND ASSESSMENT (2020)

HOUSING FOR A FAIR CHARLESTON (2020)

HOUSING AND COMMUNITY
DEVELOPMENT CONSOLIDATED PLAN
(2020)

DUTCH DIALOGUES REPORT (2019)

SEA LEVEL RISE STRATEGY (2019)

CITYWIDE TRANSPORTATION PLAN (2018)

PEOPLE PEDAL PLAN (2018)

PLAN WEST ASHLEY (2018)

TREES TO OFFSET STORMWATER STUDY (2018)

RETHINK FOLLY ROAD REPORT (2016)

DUPONT WAPPOO COMMUNITY PLAN (2016)

JOHNS ISLAND COMMUNITY GREENWAYS PLAN (2010)

PRESERVATION PLAN (2008)

JOHNS ISLAND COMMUNITY PLAN (2007)

#### HOW TO NAVIGATE THIS DOCUMENT

Key terms used throughout the plan are defined in the plan glossary and at the beginning of each section where they are referenced. The sources for the key terms are included in the footnotes at the end of each chapter. If they are not sourced, the definition was created by city staff or adapted from a dictionary definition.

The *Process & Engagement* section provides an overview of the plan process, community engagement activities, and recommendations for future engagement. Input gathered during engagement is shared throughout the plan as it relates to each element. The full public input report is included in Appendix H.

Each of the nine *Plan Elements* include a purpose statement, key terms, data on existing conditions and trends, and a set of recommendations pertaining to that element (with the exception of population). The purpose statements are adapted from the Municipal Association of South Carolina (MASC) Comprehensive Planning Guide (2018) and online resources.

The *Appendix* includes supplemental data and information referenced throughout the plan. Due to the size and quantity of items, the majority of appendices are not directly inserted in the plan document and must be viewed and downloaded separately.

Sources cited throughout the plan can be located at the end of each section.

 $<sup>^{\</sup>rm i}$  Quotes from participants in City Plan Listening Sessions, Fall 2020

<sup>\*</sup> Links to all of the above plans and studies can be found in Appendix R.

## PROCESS AND ENGAGEMENT

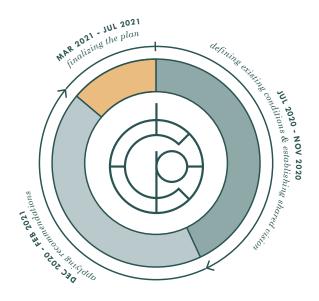
Community empowered.

The creation of the Charleston City Plan was a collaborative effort that spanned approximately one year and corresponded with the height of the global COVID-19 pandemic. This created unique and unprecedented challenges for the broad-based community participation that is critical to the integrity of the planning process. Despite these challenges, City Plan engagement efforts led to the most robust and inclusive community participation campaign than has been achieved in any previous comprehensive planning process.

A team of local consulting firms - the Asiko Group, Community Solutions Consulting, and Civic Communications – played a critical role in shaping the approach and priorities of the engagement campaign that focused on the meaningful involvement of community members, especially groups that have traditionally been underrepresented in planning conversations.

by a wide network of neighborhoods and community partners - included social media, blog and website. Key outreach and street canvassing, third-party Facebook outreach, press releases, weekly updates in the Business and Neighborhood Services available in both English and Spanish.

City-initiated outreach efforts - amplified weekly Hey Neighbor! Newsletter, and regular updates on the City Plan newsletter, communication materials, including the City Plan community survey, were made



#### **CITY PLAN PROCESS AND TIMELINE**

The plan process consisted of three core phases:

#### JULY - NOVEMBER 2020

Defining existing conditions, establishing a shared vision

Over 3,000 residents and other stakeholders participated in the first round of engagement, which consisted of a series of community listening sessions, community-led gatherings, and the City Plan community survey. The purpose of the first round of engagement was to gather information about the community's priorities, concerns and vision for the future. During this period, city staff also worked with consultant teams to complete the City Plan Land and Water Analysis, and the City Plan Housing Analysis.

#### DECEMBER 2020 - FEBRUARY 2021

Applying recommendations

Community input gathered from the first round of engagement and the findings from data analysis efforts were synthesized and applied to the first draft set of plan recommendations.

#### MARCH - JULY 2021

Finalizing the plan

Over 300 residents and other stakeholders reviewed segments of the draft plan and gave feedback in a follow-up round of community engagement, which consisted of virtual sessions and in-person pop-ups for each area of the city, special topic virtual sessions, and a month-long open house. After revisions were made in response to the feedback gathered, the final draft was presented to Planning Commission and City Council for adoption.

#### **KEY TERMS**

Community Engagement (also known as Civic Engagement) is the collaboration between the city and its community members around specific opportunities to shape policies, plans and programs.

Community Integration is when systems and processes support regular opportunities for feedback and ongoing partnership between city staff, city leadership and community in the creation of policies, plans and programs.

Community Members refers to all individuals that are a part of the greater Charleston community, including areas outside of the plan area, whether that be as a permanent resident, a business or property owner, student or visitor.

Historically Underrepresented refers to when a group has been inadequately represented in important research, as well as in planning and policy decisions, as a result of historical institutional discrimination and other factors that have denied or limited access to those groups.

Inclusive Outreach and Public Engagement is when outreach and engagement processes are inclusive of people of diverse races, cultures. gender identities, sexual orientations and socioeconomic status.

Listening Session refers to a meeting with community members where there is minimal communication from city staff or other leadership and where the primary goal is for participants to have an opportunity to share their stories and

Meaningful Involvement is when: 1) potentially affected community residents and communities most affected by inequities have appropriate and culturally responsive opportunities to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public's contribution can influence the agency's or jurisdiction's decision; (3) the concerns of all participants involved will be considered in the decision-making process (and measures will be taken to document how they were or were not considered).i

Participation is the act of joining or taking part in an event or activity.

Resident refers to any individual who resides in the plan area, including those who are currently unhoused.

Stakeholders includes all individuals or organizations that have an interest or concern in decisions being made, including those that may not be a current resident.

**Transparency** is achieved when residents and other community members can access important information about how public business is being conducted and how public funds are being spent in a way that is readily available and easily understood.





Residents and city leaders engage with draft plan materials at the City Plan pop-up held at the Arthur Christopher Community Center in downtown Charleston.

ArtPot community volunteers and residents of Johns Island pose for a group photo after a night of canvassing in the community.

#### **ENGAGEMENT BY THE NUMBERS**



58 EVENTS
VIRTUAL & IN-PERSON

40
CITY-LED EVENTS

18
COMMUNITY-LED EVENTS



30% OF PARTICIPANTS

HAD NEVER PARTICIPATED IN PLANNING
CONVERSATIONS PREVIOUSLY



1,000+ SUBSCRIBERS
TO THE CITY PLAN NEWSLETTER



1,000

RESIDENTS & STAKEHOLDERS

PARTICIPATED IN SCHEDULED ACTIVITIES

iFIVE!

SPANISH-LANGUAGE ACTIVITIES
(CANVASSING & ONLINE PANELS)

2,500+ RESPONSES
TO THE CITY PLAN COMMUNITY SURVEY

#### 17,000+ PEOPLE ENGAGED

INDEPENDENTLY WITH CONTENT SHARED ON THE CITY PLAN WEBSITE, CITY PLAN YOUTUBE PLAYLIST, COMMUNITY SOLUTIONS CONSULTING FACEBOOK PAGE, AND THE ICHARLESTON, AQUÍ ESTAMOS! FACEBOOK PAGE.

#### **REPRESENTATION**

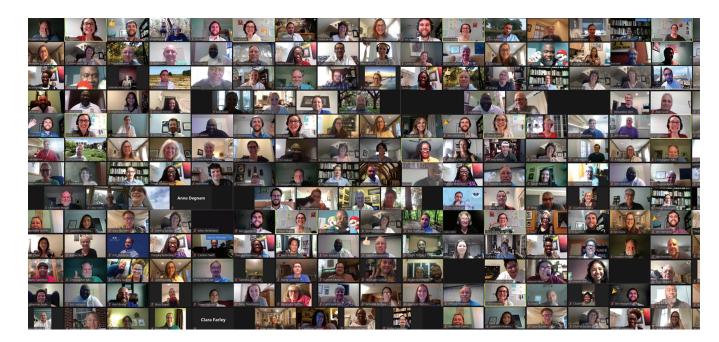
In the first round of engagement, the demographics of city-led sessions were majority white, age 40+, homeowners and affluent. Community-led sessions and the Spanish-language Charla Comunitaria contributed to an increase in participation from Latinx and Black/African-American residents, especially when compared to previous planning processes. There was also a strong level of participation (about one-third) of people who had never participated in planning conversations previously.

In the second round of engagement, there was a notable increase in participation from Black/African-American community

members, especially through the in-person pop-ups, Community Solutions Consulting's direct outreach, and settlement community project outreach; and a continued increase in Latinx participation through ArtPot's direct outreach. The percentage of new participants remained strong (about one-third).

The City Plan community survey was completed by over 2,500 residents and other community members. Compared to the demographics of the City's population, there was an over-representation of white respondents, lower Peninsula residents, and respondents age 35 and above; and an underrepresentation of tenants, lower-income

#### **PROCESS AND ENGAGEMENT**



Black/African-American respondents, Upper Peninsula and James Island residents, and youth (age 24 and younger). To compensate for this underrepresentation, the survey results from each underrepresented group were analyzed separately and compared to overall results to note where trends and themes diverged.

#### **EQUITY AND COMMUNITY** INTEGRATION IN PLANNING

"Nothing about us without us."

At every engagement activity, community members expressed appreciation for the opportunity to be informed and be heard, and community integration. shared a desire for increased transparency, communication and engagement on an ongoing basis.

Equity in planning requires that those impacted by decisions are active agents in the decisions being made. The engagement

respondents (making \$32,760 or less annually), for the Charleston City Plan made significant strides in this direction, but there is still considerable work to be done, especially with those communities that remain underrepresented. This work will require time, resources, and a foundation of trust. Additionally, for community members to have true agency in planning decisions, they first need a base level of knowledge and understanding of how planning works, how it addresses the multiple intersecting issues affecting their quality of life, and how to stay informed. Education, transparency and relationship-building will require ongoing and consistent resources to shift from a culture of community engagement to one of

> More information about engagement efforts, observations and recommendations can be found in the engagement reports compiled by the Asiko Group, Civic Communiciations and Community Solutions Consulting; and ArtPot in Appendix I.

#### PROCESS AND ENGAGEMENT RECOMMENDATIONS



#### 01.

Dedicate independent funding and resources for all departments to increase accessibility and promote community integration in planning and other decisionmaking processes; including additional resources to expand in-house communications capacity.

#### 02.

Invest in technology and other tools to expand access to public meetings and ongoing planning efforts.

#### 03.

Establish mechanisms to coordinate engagement, education and outreach efforts across all departments.

Increase the City's capacity to consistently provide materials and information in both English and Spanish, and to proactively arrange English to/from Spanish interpretation for public meetings.

Develop strategies to ensure transparency and accountability for the implementation of plan recommendations, including a methodology to communicate progress for recommendations put forth in all sections of the City Plan.

#### 06.

Continue to research and diversify data sources to be data smart thus supporting staff when formulating policy, processes and ordinance development.

Group photos were taken at the end of every listening session in the first round of engagement.

<sup>&</sup>lt;sup>i</sup> College of Charleston Community Assistance Program. Racial Equity Framework Glossary.

Population includes information related to historic trends and projections; the number, size and characteristics of households; educational levels and trends; income characteristics and trends; race; sex; age; and other information relevant to a clear understanding of how the population affects the existing situation and future potential of the area.

The Population chapter of the City Plan is foundational to the remaining sections of the plan, providing critical data about Charleston's population with a special emphasis on trends and patterns observed in various sets of demographic data. Most of the data used in this exploration is pulled from various types of demographic data produced by the U.S. Census Bureau and supplemented with local surveys and estimates. While numbers on a page can never define a people, they provide a data-driven narrative to help guide the Plan and its choices.

The City of Charleston is the primary urban center of a fast growing metropolitan region.

The city in 2020 consisted of a variety of urban, suburban, and some rural settings

from the city's oldest neighborhoods
downtown, to suburban subdivisions in

West Ashley and on James Island, to the pastoral landscapes of Johns Island and new neighborhoods on the Cainhoy peninsula.

Each area has its own unique history and man-made or natural environments. The residents of each area and every community share a strong sense of connection to the city and are deeply invested in its future.

As any vibrant, growing city, Charleston has seen the make-up of its population change over time. Demographically speaking, Charleston has changed dramatically during the past two decades. National trends such as a growing senior population, declining household sizes and increasing median incomes are changing the demographic make-up of the Charleston region. Recent trends also indicate the city is losing the diversity that has played such an important role in shaping what makes Charleston unique.

#### **CHARLESTON IN CONTEXT**

The City of Charleston is the urban and geographic center of the Lowcountry and is gaining in significance in the region, state and nation as it grows in population, and economic and cultural influence. In addition to welcoming more than 7 million visitors annually, it has recently become a destination for immigrants from all over the United States; but especially from the South and within the state itself.

State. Migration within the United States is one of the major patterns in national population change directly affecting population growth in South Carolina and the Charleston region. Between 2010 and 2019, the South Region (defined by the U.S. Census Bureau), by far, saw the highest overall increase in population, actually absorbing more than half of the estimated 19.4 million person national population increase. Continuing a trend from the previous decade, South Carolina was the tenth fastest growing state between 2010 and 2019. Most of the new South Carolina residents moved from nearby states including North Carolina, Georgia and Florida.

# TOP 10 STATES IN POPULATION GROWTH 2010- 2019

STATE	POP. CHANGE	STATE	STATE POP. CHANGE	
01 Texas	2.050.200	O/ Washington	000.050	
OI Texas	3,850,320	<b>06</b> Washington	890,353	
<b>02</b> Florida	2,676,427	<b>07</b> Arizona	886,700	
<b>03</b> California	2,258,267	<b>08</b> Colorado	729,540	
<b>04</b> North Carolina	952,601	<b>09</b> Virginia	534,495	
<b>05</b> Georgia	929,770	10 South Carolina	523,350	

#### **KEY TERMS**

**Demographics** refers to the socioeconomic profile of a population according to factors such as employment, education, income, race, ethnicity, age, gender, household size and more.

**Density** (Population Density) is an indicator of how crowded, or spread-out, a population is. In land use planning the most common expression is the number of dwelling units per acre (ex. 1.5 du/ac is a low density area and 26.4 du/ac is a high density area).

**Disparity** is a difference in area of life (such as education, wealth, home and business ownership, education and health) that results in one group having a disproportionate burden of negative life outcomes.

**Diversity** refers to psychological, physical, and social differences that occur among any and all individuals; including but not limited to race, ethnicity, nationality, religion, socioeconomic status, education, marital status, language, age, gender, sexual orientation, mental or physical ability and learning styles. <sup>i</sup>

Family refers to the householder and all (one or more) other people living in the same household who are related to the householder by blood, marriage, or adoption (according to the US Census Bureau).

Gentrification was defined as "the loss of neighborhood diversity through the displacement and exclusion of schools, churches, affordable housing and traditional neighborhood-based businesses" in the 2001 City of Charleston Gentrification Task Force Report to City Council. ii The Avery Institute defines gentrification as "the process of dismantling existing urban neighborhoods and displacing poor people of color to make way for new residents who are mostly white and wealthier." iii

**Household** refers to all of the people who occupy the same housing unit. This includes families with children, married and unmarried couples, roommates living together, or individuals living alone.

LGBTQIA stands for Lesbian, Gay, Bisexual, Transgender, Queer, Intersex and Asexual and is often used as an umbrella term to refer to the community of individuals identifying with one or more of these adjectives/experiences.

Median Household Income is the household income for the median-or middle- household in a region. If you were to line up each household in the area in order from lowest to highest income, the household in the middle of the line would be the median household. The amount of money that household earns would be the median household income.

**Non-Binary** is referring to all other gender identities not included in the Census-provided gender categories of male and female.

**Socioeconomic** refers to the social class of an individual or group based on a combination of education, income and occupation.

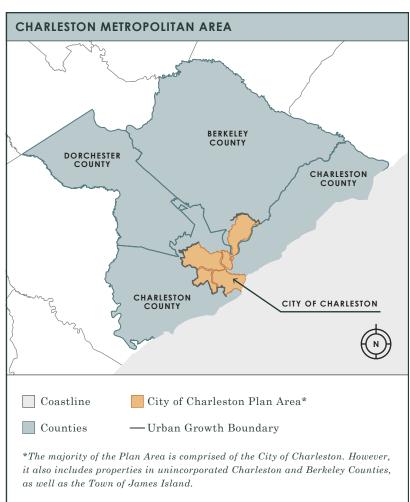
Tri-County Region. The Charleston region is often considered to be just the urban portions of the tri-county area, but for statistical and planning purposes, comprises the entire area within the boundaries of Berkeley, Charleston and Dorchester Counties. Within this regional context, the overall population has grown steadily and, most recently, has begun to rise more dramatically as local and national migration patterns affect the area. The latest 2019 Census estimate put the tri-county population at just over 800,000 people, a 17% increase since 2010, and estimates continued growth by about 30 persons per day.vi Much like the statewide trend, most of the rapid growth in the region can be attributed to

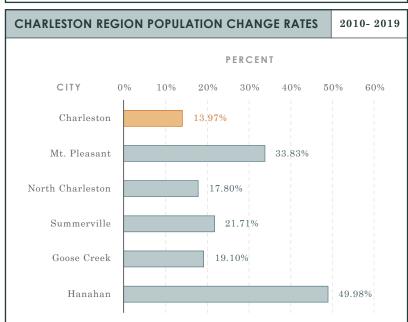
an influx of new residents through migration. Between 2010 and 2019, 74% of the population increase came from migration and 26% from natural increase.

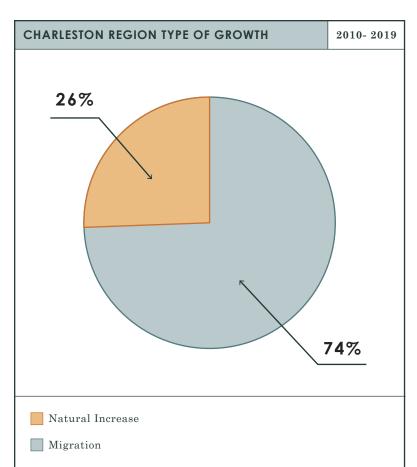
This population migration to the tri-county region has led to dramatic housing growth outside the Charleston urban center, especially in suburban areas such as Mount Pleasant, Summerville and outer West Ashley. While the Charleston region as a whole increased rapidly in population, the city experienced the least change in population of the six largest metropolitan areas in the region.

#### **POPULATION GROWTH**

The City of Charleston's population has increased consistently since 1980, with the greatest increase occurring in the last decade. According to US Census Population Estimates figures, since 2010, the city increased in population by approximately 14% overall and about 1.55% per year. This indicates a rapid increase, though not as rapid as most of the surrounding towns and cities.







CITY ESTIMATED POPULATION CHANGE BY AREA			
PERSONS	PERCENT		
40,969	18%		
66,992	23%		
22,215	24%		
10,961	108%		
15,399	90%		
	PERSONS  40,969  66,992  22,215  10,961		

Source: US Census and American Community Survey (ACS). Overall population density in the City of Charleston has remained relatively stable in recent decades mainly due to the footprint of the city boundaries growing at a similar rate as the population. Between 1990 and 2000, about half the city's population growth was the result of annexation. In contrast, today most of the growth is occurring as a result of migration to the city.

The most significant population growth trend facing Charleston is the rapidly growing city population outside the Peninsula. All areas of the city saw an increase of new residents between 2010 and 2020, but the Peninsula and West Ashley gained the largest number of people while Johns Island and the Cainhoy area experienced the largest percent increases in population at 108% and 90% respectively. West Ashley remains the most populated area of the city.

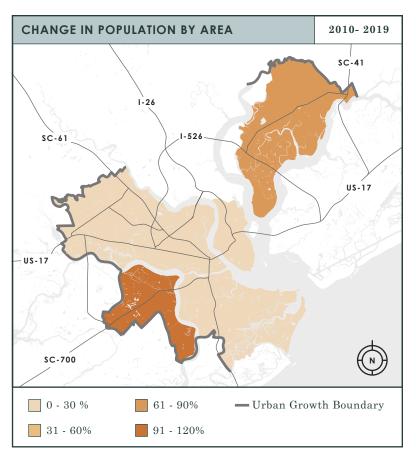
On the Peninsula, Charleston's urban center, the density is the highest in the city and the region at 4,735/mi² while the Cainhoy Peninsula has the city's lowest density at 429/mi². This distribution pattern of a high-density urban core surrounded by lower suburban densities at the edges of the city is typical of most urban areas.

Peninsula. The Charleston peninsula, historically the population center of the city and the region, is the second-most populated land body in the city with an estimated 40,000 residents. Both the total number and percentage of population on the peninsula declined significantly after 1940 and was on a downward trend until 2000 when it began to tick back up and has recently seen a resurgence. In 1940, the Charleston peninsula contained over 71,000 residents. This represented 42% of the population in the Charleston region and 100% of the population in the City of Charleston (no other

city areas had been annexed). By 2000, the Peninsula population had declined by 50% to less than 36,000 residents. The population of the Peninsula had not been this low since before 1850. Today, the Peninsula accounts for just 5.4% of the region's population and 26% of the city's population.

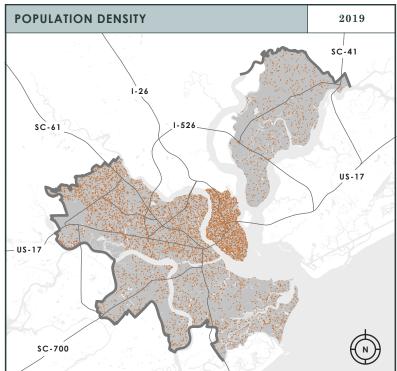
Much of the initial decline of the urban center was the result of the mass population movement to the suburbs (commonly known as white flight) starting in the 1960s, but other factors such as reduction in household size and lack of housing growth continued the trend into the 1990s. The recent upward trend can be primarily attributed to job growth and residential construction in the commercial core along King and Meeting Streets and in the Upper Peninsula. The Peninsula remains the most culturally and demographically diverse area of the city and still absorbs a large number of people every day in the form of tourists and workers. The gradual decline in population and continued status as the economic and cultural engine of the region indicates the Peninsula has the potential for growth over the next several decades.

West Ashley. Currently, the most populated geographic area of the city is West Ashley, where 42% of the city's residents live. This area has increased in population by 25% since 2000 and 75% since 1990. Most of the population lives in suburban neighborhoods developed since 1940 but has changed significantly since the 1960s and continues to grow and evolve. It was to the new subdivisions in what is now inner West Ashley that much of the population moved to when they left the peninsula. Today, outer West Ashley is seeing the most change as home construction continues steadily drawing many families and commuters pursuing lower housing prices.



James Island. James Island, much like West Ashley, contains a large suburban population. The majority of James Islanders are not in the City of Charleston jurisdiction. The city's population on James Island has increased the smallest amount (24%) of all city areas since 2010 by an estimated 4,400 persons.

Johns Island. Johns Island remains the least populated area of the city despite significant growth over the past decade. The city portion of the population on Johns Island has more than doubled since 2010, but the total city population has only increased by an estimated 5,700 persons. Planned and approved development in the Maybank corridor indicate steady growth will continue over the next decade.



 $\label{lem:condition} Graphic \ representation \ of \ density \ where \ one \ dot \ randomly \ distributed$  equals twenty-five persons.

Cainhoy Peninsula. While all areas of the city have seen significant increases in population, the Cainhoy Peninsula, has seen the highest percentage increase in population over the past ten years. Large areas remain undeveloped along Clements Ferry Road and will likely see much more population increase over the next ten years as this area contains some of the highest ground in the city and best opportunities to grow responsibly.

Population Projections. The population growth trend in the suburban areas is expected to continue, and by 2030 the population of the peninsula will continue its upward trend. Vii Johns Island, Daniel Island, West Ashley and the Cainhoy Peninsula are expected to continue with steady population growth while James Island growth

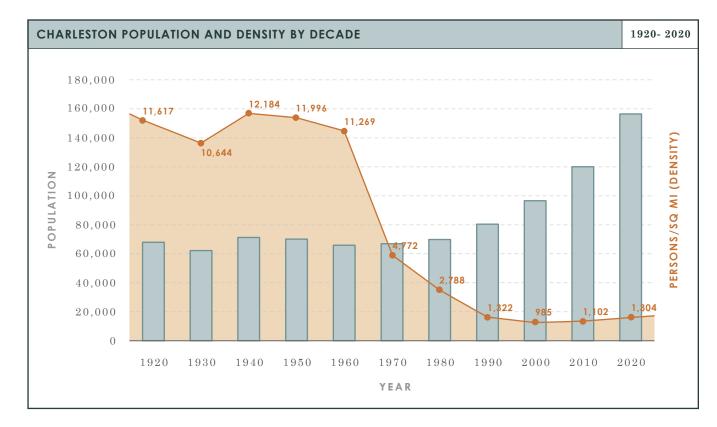
will see only modest increases. Projections indicate most of the population will live outside the city center yet will not extend significantly beyond existing urban and suburbanized areas. Infill development, more compact development patterns, changing housing markets, and City planning and growth management policies may drive this trend.

#### DEMOGRAPHIC TRENDS

Age. The gradual trend of an aging population is evident nationally and in the City of Charleston. Between 2010 and 2019, the latest estimates indicate a decrease in the percentage of persons under the age of 18. The largest age group in Charleston is made up of persons age 25 to 34 and percentage increases occurred in this age group and in all age groups from 55 to 74 leading to an overall increase in the median age from 32.5 to 34.8. An aging population can have implications on housing, education, the local economy and medical services

Gender. Gender percentages remained stable during the last decade with approximately 52.7% of the population being female. The U.S. Census Bureau, the key source of local demographic data, currently does not collect non-binary gender statistics but alternative survey data from the Williams Institute indicates LGBT individuals make up about 3.5% of the population in South Carolina (over 180,215 individuals).viii

Race and Ethnicity. Charleston continues to be a racially and ethnically diverse city, but recent trends indicates a shift toward a more homogenous demographic. The 2019 American Community Survey (ACS) estimates that about 74.1% of the city's population are White/Caucasian while 21.7% are Black/African-American; down from



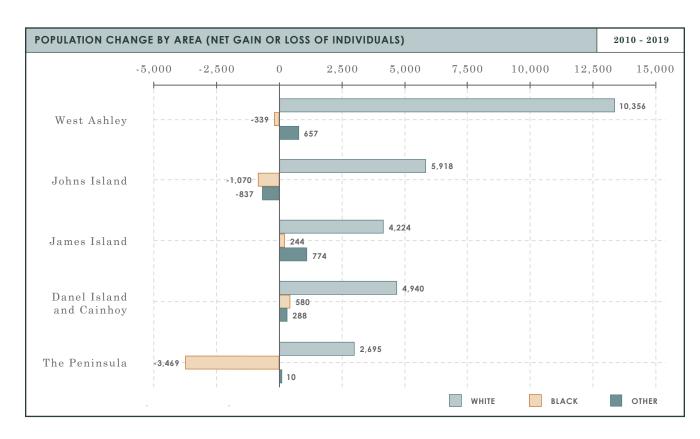
41% in 1990 and a decrease of 3.9% since 2010. Total non-white Hispanic residents in households were people living alone, a the city increased from 2.9% in 2010 to an estimated 3.2% of the 2019 population with the most significant portion of the population living on Johns Island. Data provided by the Charleston County School District suggests Johns Island and other areas may have a higher percentage of Hispanic population than the Census data indicates. ix Other races and ethnicities collected by the Census including Asian, Native Hawaiian and other Pacific Islander. and American Indian and Alaska Native make up about 2% of the city. Indigenous populations make up less than one-half percent of the city's community.

Families and Households. In 2019, families made up an estimated 52% of the households in Charleston, remaining stable since the

last census. About 35% of the non-family slight decrease from a decade ago. The average family size was 2.97 persons in 2019, exactly the same size as in 2000. After decades of decline, average household size increased from 2.18 in the 2000 Census to 2.31 persons per household in 2019. The percent of households containing children declined (by 4%) and the percent containing persons 65 or older increased (by 4%) in the last decade; another indication of our aging population overall.

#### Income.

Median family incomes have risen steadily in the Charleston area over the years(about 28% since 2010) but not all residents have seen the same dollar increases, indicating a disparity in the opportunities all city residents have for access to housing,



food and health care. White households have in poverty at 24.7%. This difference again seen a disproportionate actual increase compared with black households as the racial income gap has widened significantly over the past decade. This gap in incomes is much higher in Charleston than nationally. The white household income in Charleston is \$15,358 higher than the national average, while the black household income in Charleston is \$7,039 below the national average. Reliable median household income for other racial and ethnic categories is not readily available.

The poverty rate of families in Charleston has dropped significantly over the past two decades cutting in half the percentage from 13.5% in 2000 to an estimated 6.5% in 2019. However, there is wide disparity between white persons living in poverty at 9.6% compared with black residents living

highlights the inequities in race and income in the city.

The Avery Institute's 2017 State of Racial Disparities report lists the following factors as key contributors to income disparities by race:

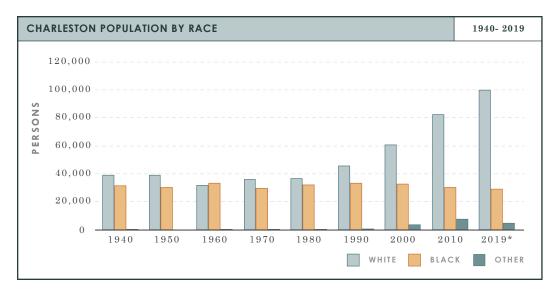
*Intergenerational poverty* 

Racial segregation and isolation

Housing, transportation, and other localgovernmental policies that reinforce the conditions that lock black workers into lower-paying service jobs

Public education that does not meet the needs of the emerging majority of its students who are predominantly poor and black

Community economic development that is not adequately anchored by racial equity and social justice



Source: U.S. Census and 2019 American Community Survey, 5-Year Estimates

Education. Charleston residents are. overall, well-educated and increasingly so. The percentage of the population achieving more years of education beyond 9th grade is future. Since this report was published, increasing as well as the number of persons Charleston has been named the "fastest with college and graduate degrees. In 2019, over 95% of the population 25 or older had a high school diploma (or equivalent) or higher. This is an increase of 4% from the 2010 ACS and is 7% higher than the national average. Also, 53% of Charlestonians had bachelor's (or higher) degrees in 2019, an increase of 7% over the 2010 figure and 11% higher than the national average. These numbers vary widely between white and minority populations indicating a disparity in access to education.

#### **GENTRIFICATION**

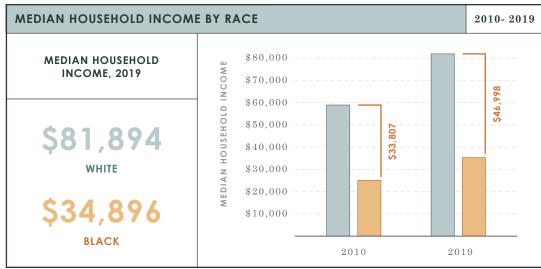
From its founding, Charleston was established by, built by and advanced by a population made up of a vast diversity of religions, races, nationalities and languages, brought together through shared circumstances of slavery, immigration, trade, war and self-determination. The 2001 City of Charleston Gentrification Task Force stated that diverse neighborhoods

are essential to maintaining a high quality of life in Charleston and that the issue of gentrification is fundamental to the city's gentrifying city" in the country several times by Realtor.com. During engagement for the City Plan, community members of all backgrounds affirmed the link between diversity and quality of life and repeated concerns over gentrification and displacement of the city's nonwhite and lowerincome populations.

Indicators of our gentrifying city can be seen in the recent demographic trends highlighted in this chapter. Key indicators of gentrification include increase of white households, decrease in overall nonwhite households, increase in the area median income, increase in educational attainment and smaller household sizes.

Gentrification in Charleston is most stark for black households. Census figures from the past several decades show the percentage of white residents increasing at a faster pace than black residents; primarily due to in-migration. In each census between 1980 and 2010 the white population increased

Source: U.S. Census and 2019 American Community Survey, 5-Year Estimates



significantly while the black population remained relatively stable. Estimates in 2018 and 2019 indicate this trend will continue in the 2020 Census numbers and indicate a decline in the black population overall in the city, most notably on the Peninsula and Johns Island.

Strength in diversity means that the

vibrance of the city's economy and culture depends on maintaining and attracting diversity. Strategies to address gentrification in the City Plan include through municipal-level policies aimed at housing affordability, job growth, neighborhood support and quality of life. Plan recommendations related to these topics are addressed in other chapters of the plan.

<sup>&</sup>lt;sup>1</sup> College of Charleston Community Assistance Program. Racial Equity Framework Glossary.

ii City of Charleston, 2001, "City of Charleston Gentrification Task Force Report to City Council," Charleston, SC.

iii Patton, Stacey. 2017. The State of Racial Disparities in Charleston County, South Carolina, 2000-2015. Charleston, SC: Avery Research Center for African American History and Culture, The College of Charleston

iv Most demographic data related to the City of Charleston, smaller geographic areas of the City of Charleston, surrounding counties or the metropolitan area comes from various surveys of the US Census Bureau such as The Population Estimates Program, Decennial Census (such as 2000, 2010 or 2020 Census), or the American Community Survey (ACS). Housing permit data is produced by the City of Charleston and used for annual population estimates and projections.

VU.S. Census Bureau. "Table 2. Cumulative Estimates of Resident Population Change for the United States, Regions, States, and Puerto Rico and Region and State Rankings: April 1, 2010 to July 1, 2019 (NST-EST2019-02)." Accessed 6 June, 2020. https://www.census.gov/data/tables/time-series/demo/popest/2010s-national-total.html

vi U.S. Census Bureau. "QuickFacts Charleston County, Berkeley County, Dorchester County, South Carolina." Accessed December 19, 2020. https://www.census.gov/quickfacts/fact/table/charlestoncountysouthcarolina,dorchestercountysouthca rolina, berkeley county south carolina/PST045219.

vii Population Projections for the City of Charleston are developed by the Department of Planning, Preservation & Sustainability and based on Decennial Census population, housing vacancy rates, annual City construction permit data, annual City population estimates and approved/unbuilt residential housing developments. Projection estimates are compared with construction permit trends to ensure a level of confidence in the data. Economic conditions often influence long-range projections and may be adjusted annually.

viii The Williams Institute, UCLA School of Law; LGBT Demographic Data Interactive, Accessed May 11, 2021, https:// williamsinstitute.law.ucla.edu/visualization/lgbt-stats/. The Williams Institute has not published data for Queer, Intersex or Asexual individuals.

ix Charleston County School District. "CCSD 2018 Data Dashboards." Accessed February 12, 2021. https://www.ccsdschools.com/Page/1228.

## NATURAL RESOURCES

Natural Resources are the elements of a community's natural environment such as land, water, air, soil, plants and animals. Natural resource planning includes management and conservation of natural resources to support a mutually beneficial relationship between the people of a community and its natural ecosystems.

The people of Charleston feel a strong connection to the natural landscape of the Lowcountry, known for a semi-tropical climate and variety of unique plant and animal life. Hundreds of tidal creeks, wetlands, islands, and preserved forests dictate Charleston's boundaries and where development can and cannot occur. The very founding of the city in its particular location can be attributed to the confluence of the Ashley, Cooper, and Wando Rivers at the mouth of the Charleston Harbor. New challenges presented by climate change, including increased frequency and intensity of storms and sea level rise, highlight the need for environmental protection and sustainable development practices.

During engagement, community members emphasized the role of the natural landscape as a resource that can both improve quality of life for residents and mitigate flooding. There was strong support for the preservation and restoration of valuable ecosystems as Charleston faces increasing flooding challenges with sea level rise and worsening storms. There was also a call for increased access citywide to clean and healthy green space and water. In the City Plan Community Survey, community members ranked "effective drainage and flood management" and "clean environment" as the first and second factors contributing to overall quality of life.

#### LIVING WITH WATER

Effects of climate change, including the threats of sea level rise and increasing frequency and intensity of storms, are more tangible today than ever before and will require innovative natural resource management strategies moving forward. In 2019, Charleston City Council unanimously adopted the Dutch Dialogues Charleston Report and policy recommendations. The Dutch Dialogues team worked with local, national and international experts to conceptualize a "living with water" future for Charleston, one in which the urban landscape works harmoniously with the natural flow of water.





Images courtesy of Dutch Dialogues: Charleston team.

#### **KEY TERMS**

Bioretention Basins, Bioswales and Rain Gardens are planted depressions of varying sizes and degrees designed to retain or detain stormwater before it is infiltrated or discharged downstream.

Climate Change refers to the changes in climate patterns that are primarily attributed to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.

Conservation Design refers to innovative site planning techniques that restrict buildings, structures, and impervious surfaces within specific areas of a development to preserve the most valuable natural features of a site and increase the amount of common open space.

**Ecosystem** refers to the interrelationships and interaction among plants, animals and other organisms, as well as weather and landscape within a particular geographic area.

Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Environmental Justice Communities are defined by the US Environmental Protection Agency (EPA) as communities with disproportionate exposure to environmental hazards and increased vulnerability to said hazards.

Equitable Access means that public spaces and amenities, and opportunities for participation, are designed in such a way that responds to the needs of all community members and ensures fair access regardless of race or socioeconomic status.

#### **NATURAL RESOURCES**

Creating planning and development guidelines that align with the "living with water" framework advocated by Dutch Dialogues is critical for the future of our city. Some strategies include:

Protecting existing wetlands (including places expected to become wetlands in the future due to sea level rise);

Discouraging impervious surfaces in favor of natural soils for the effective rainwater infiltration they provide;

Reevaluating zoning codes to shift development from low-lying areas to higher ground;

Promoting vegetated buffers, tree planting, and biorention basins, all of which filter and reduce stormwater runoff, a main source of water pollution in Charleston.

#### **WATER QUALITY**

Water makes up about 15% of the total area within the City of Charleston, making the issue of water quality a particularly important factor to overall quality of life. Stormwater runoff is one of the most common ways that pollutants enter local bodies of water. As rainwater flows into stormwater drains and retention ponds, it

"CHARLESTON'S LONG-TERM SURVIVAL WILL, IN LARGE PART, BE DETERMINED BY HOW THE COMMUNITY MANAGES ITS FLOOD AND SEA-LEVEL RISE RISKS." DUTCH DIALOGUES CHARLESTON

> pesticides and fertilizers, oil and gasoline city voiced their desire for equitable access from cars, and other harmful chemicals. According to a 2018 Charleston Post and Courier report, during significant flooding events, fecal coliform levels far exceed state guidelines in areas around the Charleston Peninsula.ii

Additionally, different land uses can generate different types of physical, biological, and chemical pollution that can impact water quality. For example, malfunctioning on-site septic systems may release nitrogen, phosphorous, and fecal coliform bacteria into groundwater.iii Cleaning up and disposing of debris, preserving natural vegetation and drainage patterns and minimizing land disturbance during development are proven strategies for improving water quality.iv

#### NATURAL RESOURCES AND EQUITY

Due to multiple factors including a long history of segregation, redlining and disregard for environmental hazards in lower income and minority communities, today many of Charleston's most vulnerable neighborhoods are also some of the most exposed to flooding, extreme heat, and hazardous materials. According to the City's 2020 All Hazards Vulnerability and Risk Assessment, about 71% of all hazardous materials locations are in the most vulnerable neighborhoods around the city (using the CDC's Social Vulnerability Index). The same study found that about 1,900 households with members 65 years of age or older and about 2,900 households living below the poverty line live in areas that are the most vulnerable to extreme heat due to their low tree canopy cover, high developed land cover, and less ability to cope with the effects of heat based on socioeconomic status.

Throughout the City Plan public engagement captures pollutants including animal waste, process, community members around the to nature and high environmental standards for communities of all socioeconomic and racial backgrounds. For example, residents of African-American settlement communities in Wando cited the longleaf pine forests and local farms and waterways used for

fishing and crabbing as vital connections to the natural world. To address inequities in environmental quality and access, equity considerations should be at the forefront of land use and natural resources planning decisions over the coming decade.

#### PARKS AND CONSERVED AREAS

During the City Plan engagement process, 88% of City Plan survey respondents said they would like to see more land preserved for recreational public use and many community members suggested prioritizing future parks and recreation investments for currently underserved neighborhoods. The Dutch Dialogues Charleston report recommended using parks facilities to store water and reduce runoff, a strategy supported by 80% of City Plan Survey respondents.

In 2020, The City of Charleston Department of Parks maintained over 1,866 acres of parkland and 4.22 million square feet of building space, serving approximately 156,000 residents.vi The Parks Department is currently developing One Charleston, its first ever Parks and Recreation Master Plan, which will guide future parks acquisitions and major upcoming parks projects. Additionally, the City of Charleston has worked with Charleston County through the Charleston County Greenbelt Program to acquire interest in land for conservation, wetlands protection, historic and cultural preservation, parks, greenways and trails, and waterway access; and support public access and use of conserved lands. The Greenbelt Program, initiated in 2004, has protected over 21,000 acres of land, to date, of which over 9,300 acres were purchased for future public parks and green spaces. In 2016, Charleston County citizens approved a second one-half penny sales tax for roads, mass transit and greenbelts. This 25-year tax will provide an additional \$210 million for Greenbelt Programs.vii

#### **KEY TERMS (CONT.)**

Green Infrastructure is defined in the City of Charleston Zoning Ordinance as an adaptable term used to describe an array of materials, technologies, and practices that use natural systems or engineered systems that mimic natural processes to enhance overall environmental quality and provide utility services. As a general principal, green infrastructure techniques use soils and vegetation to infiltrate, evapotranspirate, and/or recycle stormwater runoff.

Green Space is an area of grass, trees, or other vegetation set apart for recreational or aesthetic purposes in an otherwise urban environment.

Impervious Surfaces in the City of Charleston Zoning Ordinance is defined as a surface which is compacted or covered with material that is resistant to infiltration by water, including, but not limited to, most conventional surfaced streets, roofs, sidewalks, parking lots, and other similar structures.

Mitigation is the action of reducing the severity, seriousness or painfulness of something; to reduce

Sea Level Rise is an increase in the level of the world's oceans due to effects of global warming.

Stormwater is water that accumulates as a result of rain or other precipitation and Runoff is created when stormwater flows over ground surfaces that do not allow the water to soak into the ground.

Sustainable Development is a concept that describes development that meets the needs of a community while simultaneously sustaining the natural resources and ecosystems on which the economy and society depend.

Tree Canopy Cover is defined by the US Department of Agriculture (USDA) as the layer of leaves, branches and stems that provide tree coverage of the ground when viewed from above.

Urban Growth Boundary (UGB) is a boundary line that surrounds the City of Charleston, discouraging suburban or urban growth in rural areas outside the UGB.

Vegetated Buffers are planted sections of land situated between development and area of protection.

Wetlands are classified by the U.S. Army Corps of Engineers as an area with hydrophytic (waterloving) plants, soils that support the growth of hydrophytic plants, and water (wetlands can sometimes be absent of standing water).

Wetland Buffer is a concentration of trees, shrubs, and other native plants and gradually sloping bank adjacent to a wetland.

Urban Growth Boundary. In addition to improving and increasing the amount of parks and conserved lands, the City works to preserve green space and prevent urban sprawl through the protection of the Urban Growth Boundary (UGB). Established in the late 1990s, the UGB is a boundary line that surrounds the City of Charleston, discouraging suburban or urban growth in rural areas outside the UGB. Respecting the UGB and concentrating development and redevelopment within this boundary is vital to protecting the ecologically rich rural areas and protected lands, which provide storm water retention and improve air quality for the entire region.

Many sections of the UGB are already well protected by park lands, designated conservation areas, or undevelopable natural features. To maintain the integrity of the full UGB, future land conservation efforts should focus along the Brownswood Road corridor, south of Cane Slash and Plow Ground Roads on Johns Island; along southern parts of Folly Road on James Island; and areas adjacent to the UGB in West Ashley and the Wando area on the Cainhoy Peninsula.

Existing Natural or Preserved Areas that protect the Urban Growth Boundary (UGB)

BULOW COUNTY PARK
RANTOWLES CREEK AND ADJACENT
WETLANDS

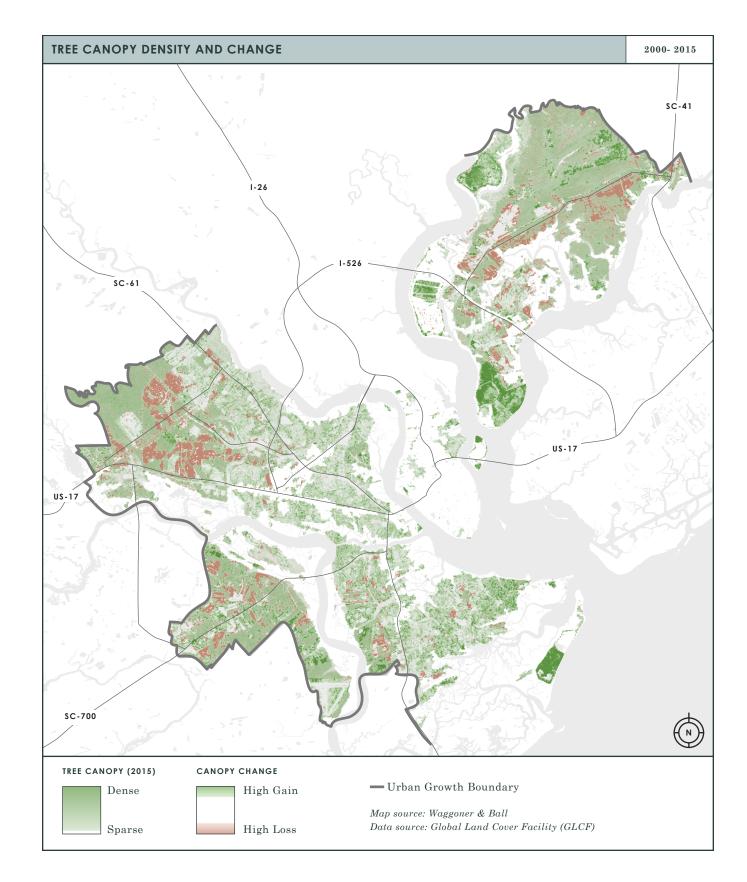
FRANCIS MARION NATIONAL FOREST

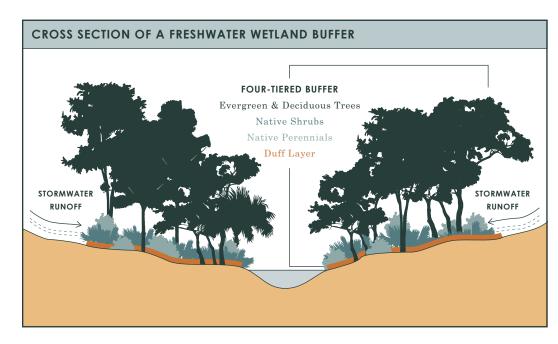
#### **GREEN INFRASTRUCTURE**

Many people think of large and expensive manmade infrastructure projects as the only way to meet the challenges of sea level rise and flooding, but some of the best stormwater infrastructure tools have been around for thousands of years. "Green infrastructure" such as healthy clusters of trees and wetland buffers can have many of the same benefits as manmade stormwater management tools for a fraction of the cost.

Trees. In 2017, The U.S. Forest Service and The Green Infrastructure Center selected Charleston as one of the case studies for its Trees to Offset Stormwater program, which studied the City of Charleston's tree canopy and the ways in which trees absorb, store and release water around the city. The Study found that 60.6% of the land within City limits is covered by tree canopy and 18.5% is covered by impervious surfaces such as parking lots or building footprints. In Downtown Charleston, only 17.4% of land is covered by tree canopy, and 62.8% is covered by impervious surfaces. From 1992 to 2016, the City of Charleston lost about 5% of its tree canopy according to researchers at the College of Charleston's Lowcountry Hazards Center.viii That trend may be reversing as the city saw a 1.05% gain in tree canopy from 2009-2017.ix The City's Stormwater and Parks divisions coordinate tree planting and maintenance and the City of Charleston has planted more than 5,000 new trees since 2017.x

Apart from the aesthetic benefits, shade, and habitat for animals that trees provide, they are also vital pieces of stormwater infrastructure. According to the *Trees to Offset Stormwater*xi study, "during a rainfall event of one inch, one acre of forest will release 750 gallons of runoff, while a parking lot will release 27,000 gallons."xii Trees are also much more cost effective than traditional man-made stormwater infrastructure. Land conserved for stormwater retention "show an eight-to-one dollar savings ratio versus man-made flood-control structures."xiii Increased tree





Cross section of a typical freshwater wetland buffer. Image courtesy of Dr. Amy Scaroni , Clemson University.

canopy alone will not address stormwater issues, especially if the land surrounding the tree is covered by impervious surfaces such as concrete or asphalt. In order to achieve the stormwater benefits of trees, clusters of trees and larger forested areas must be conserved rather than simply planting trees around paved surfaces.

Wetlands. The City of Charleston is home to various types of wetlands, from forested freshwater wetlands to saltwater marshes. There are about 3.8 million acres of wetlands in South Carolina, and about 95% of those wetlands are located in the coastal region of the state. Wetland buffers offer a measure for wetland protection that can also serve as a vital element of green infrastructure. A wetland buffer is a concentration of trees, shrubs, and other native plants and gradually sloping bank adjacent to a wetland.

Wetland buffers serve three main purposes:

Provide flood storage.

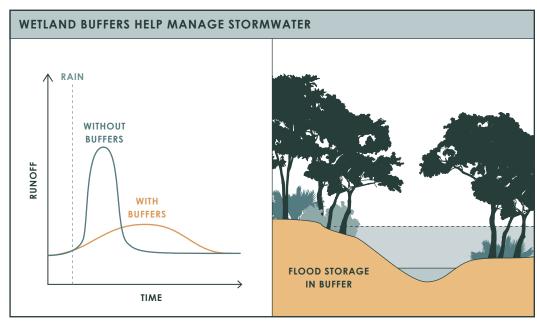
Wetland buffers store floodwater, allowing it to slowly infiltrate larger bodies of water, avoiding flash floods that can overwhelm manmade infrastructure.

Protect water quality.

Wetland buffers filter and capture pollutants from storm water runoff before they enter bodies of water.

Preserve habitat for plants and animals. Wetlands provide habitat and shade, cooling water temperatures to levels more suitable for fish and other animals. They also provide protection between the edge of developed areas and the water features where plants and animals live.xiv

Wetland buffers slow the rate of runoff and store floodwater during storm events. Image courtesy of Dr. Amy Scaroni, Clemson University.



Marsh. Marsh, or saltwater wetlands, are dynamic ecosystems that are influenced by the water levels of their neighboring bodies of water. The South Carolina Department of Health and Environmental Control (DHEC) has established a "critical line" on the South Carolina coast that delineates bodies of water that feed into the Atlantic Ocean. To protect saltwater wetlands, various municipalities including the City of Charleston employ a Critical Line Buffer Ordinance, which require development to be set back additional distance from the OCRM critical line.

As sea level continues to rise, the location and size of saltwater marshes will also change. Planning and development strategies can directly affect how marshes move and change over time. To preserve these vital resources, low-lying areas should be reserved

to make room for new marsh areas over time. Areas with manmade structures used to defend existing development will inhibit and eventually kill saltwater marshes.

Encouraging the use of fresh and saltwater wetland buffers through planning and zoning policies is vital for protecting developed areas from flooding, preserving biodiversity of plants and animals, and keeping pollutants out of bodies of water. Tools like rain gardens and bio-swales can also provide some of the benefits of wetland buffers, but usually work best on a smaller scale as a strategy to capture and divert runoff from impervious surfaces at the source.

#### PLANNING FOR A SUSTAINABLE FUTURE

Over the past ten years, the City of Charleston has made significant strides

to promote environmental sustainability through various policies and programs. In January of 2020, the City banned the use of single use plastic carryout and merchandise food packaging items. In the same year, the City partnered with Clemson Extension and Keep Charleston Beautiful to provide guidance and funding for rain gardens throughout the city as part of Charleston Rainproof. The Mayor's Office of Resilience and Emergency Management (OREM) recently

completed the City's All Hazards Vulnerability and Risk Assessment, which recommended numerous strategies for reducing the city's risk to major natural and manmade disasters, bags, as well as certain plastic carryout and including implementing green infrastructure incentives through zoning or fees, and identifying open space that could double function as water storage areas. Earlier this year, City Council adopted the City's first-ever Climate Action Plan, a strategic framework for reducing carbon pollution and mitigating Charleston's impact on climate change.

#### NATURAL RESOURCES RECOMMENDATIONS



Develop policies and processes to amplify environmental justice considerations in land use, infrastructure and natural resources planning; including the prioritization of environmental justice communities in improvements to the environment and analysis of potential negative impacts of projects on environmental justice communities.

Continue to provide and expand the parks system to include large and small parks and promote equitable access and safe alternative connectivity to green spaces and water around the city.

#### 03.

Support land conservation around the edges of the Urban Growth Boundary, specifically along the Brownswood Road corridor and south of Cane Slash and Plow Ground Roads on Johns Island and along southern parts of Folly Road on James Island, as well as areas adjacent to the UGB in West Ashley and the Wando area on the Cainhoy Peninsula.

#### 04.

Develop a Greenbelt prioritization plan and work with surrounding jurisdictions to preserve more green spaces, particularly along the Urban Growth Boundary.

#### 05.

Create incentives for the use of conservation easements, including developing a toolkit for green space preservation.

Ensure land development regulations adequately protect the city's farms, prime soils for farming, natural resources and rural areas.

Continue to promote planning and zoning policies that align with the "living with water approach" outlined in the Dutch Dialogues Charleston study, including encouraging the use of green infrastructure in landscaping practices and stormwater management. Green infrastructure includes features such as bioswales, porous pavements, rain gardens, and wetland buffers; and other practices that leave existing natural features and ecosystems undisturbed.

#### 08.

Dedicate staff and resources to support collaboration between Stormwater Management, Parks and Planning to oversee preservation, creation and maintenance of green infrastructure.

Implement recommendations from the Trees to Offset Stormwater study including updating the City's Tree Protection Ordinance to preserve clusters of trees during the development process, track and increase tree canopy percentages around the city, and prioritize underserved areas or areas with aging inventory for tree planting.

#### 10.

Implement land use and transportation planning strategies to account for marsh and wetland migration due to sea level rise, including vegetated buffers to allow space for the marsh or wetland to migrate and restricting development and roadways in tidal flood risk zones.

#### 11.

Increase incentives and educational opportunities for residents to increase and maintain green infrastructure on their properties.

<sup>&</sup>lt;sup>1</sup> "Environmental Justice." EPA. May 03, 2021. Accessed May 12, 2021. https://www.epa.gov/environmentaljustice

ii Bartleme, Tony, and Glenn Smith. "Charleston Floodwaters Are Crawling with Unsafe Levels of Poop Bacteria." Charleston Post and Courier, June 14, 2018, Accessed May 2021. https://www.postandcourier.com/news/charleston $floodwaters-are-crawling-with-unsafe-levels-of-poop-bacteria/article\_9a120c08-5780-11e8-b5eb-4b448c32fc94.$ html#:~:text=Charleston floodwaters are crawling with unsafe levels of poop bacteria,-By Tony Bartelme&text=Many downtown Charleston streets become, research by College of Charleston.

iii Daniels, T. (2014). The Environmental Planning Handbook: For Sustainable Communities and Regions (2nd ed.). Routledge. https://doi.org/10.4324/9781351179270

iv Ibid.

v United States. City of Charleston, SC. Mayor's Office of Resilience and Sustainability. All Hazards Vulnerability and Risk Assessment. November 2020. Accessed May 2021. https://www.charleston-sc.gov/DocumentCenter/View/27994/All-Hazards-Vulnerability-Assessment-Full-Report.

vi https://www.charleston-sc.gov/DocumentCenter/View/26154/City-of-Charleston-2020-Formal-Budget

vii Charleston County Greenbelt Program. https://greenbelt.charlestoncounty.org/

viii The Impact of Forest Cover on Flooding and Climate Change in Charleston County, SC. College of Charleston Lowcountry Hazards Center. 2020. Accessed May 2021. https://gis.cofc.edu/portal/apps/MapSeries/index.html?appid=8dd072b 2b2774b83b4807c25f57ca8bd.

ix Ibid.

x City of Charleston FY2020 Budget https://www.charleston-sc.gov/DocumentCenter/View/26154/City-of-Charleston-2020-Formal-BudgeCt p.268

xi United States. Green Infrastructure Center, City of Charleston, SC. Mayor's Office of Resilience and Sustainability, Department of Planning, Preservation, and Sustainability. Trees to Offset Stormwater. September 2018. Accessed May 2021. https://www.charleston-sc.gov/1567/Trees-to-Offset-Stormwater.

xii Ibid.

xiii Ibid.

xiv Sarconi, Dr. Amy, Dr. Dan Hitchcock, and Barbara Neale. "Best Practices for Wetland Coastal Buffers. Session 1: Science and Design Considerations." Lecture, Webinar, February 4, 2021.

## **CULTURAL RESOURCES**

Cultural Resources are those features of a community – tangible or intangible – that are shaped by the people who live (or lived) there, and that create a unique sense of place and history, and promote cultural activities. They can include historic buildings and structures, commercial or residential areas, natural or scenic resources, archaeological sites, educational, religious or entertainment areas or institutions, and any other feature or facility that relates to the cultural aspect of a community.

Charleston's distinct cultural identity can be felt in every corner of the city, present in the cuisine, the arts, and the physical spaces that hosted some of the most important people and moments in American history. Many of these aspects of our city attracted the over seven million people who visited Charleston last year. Supporting and preserving these resources are critical to both fostering Charleston's unique sense of place and furthering the community's economic and sustainability goals. The Cultural Resources chapter provides an overview of existing resources as well as opportunities to strengthen resources in the coming years. A particular emphasis is placed on cultural resources pertaining to African-American history and culture, including a first ever inventory of historic and existing African-American settlement communities within and around the City of Charleston.

#### THE ARTS

The City of Charleston Office of Cultural Affairs (OCA) serves as the City's main advocate for the arts. The OCA spotlights the work of local artists, performers, and writers, supports and serves as a convening

agency for local arts organizations, partners with Charleston County Schools to provide arts education opportunities, and works on several major events, including the downtown and West Ashley Farmers Markets.







#### **KEY TERMS**

Gullah Geechee people are descendants of Africans who were enslaved on the rice, indigo and Sea Island cotton plantations of the lower Atlantic coast. The nature of their enslavement on isolated island and coastal plantations created a unique culture with deep African retentions that are clearly visible in the Gullah Geechee people's distinctive arts, crafts, foodways, music, and language. Many Gullah Geechee people of the Lowcountry also maintain that some ancestors of Gullah Geechee people arrived prior to European colonists and were never enslaved.

Heirs Property Heirs Property refers to land that has been passed down without a will and is still titled in the name of someone who died more than ten years ago. Owning land "in common" — as heirs — is unstable and puts family land at high risk for loss. Also, owners of heirs property cannot obtain a mortgage or loan or qualify for assistance programs to renovate homes, recover after disasters or improve the family land. iii

Indigenous peoples refers to those peoples with pre-existing sovereignty who were living together as a community prior to contact with settler populations. iv

Reconstruction refers to the period after the Civil War, 1865-1877, during which formerly enslaved African-Americans made considerable economic and political gains. It ended after years of political unrest and voter intimidation spearheaded by the Ku Klux Klan restored political power to a white supremacist political majority in Southern states.

Settlement Communities were established during the Reconstruction years (1865-1877) and through the early 20th Century by freed Gullah Geechee people and their descendants, defined by their ancestral connections to the land and their shared history, identity, and cultural institutions such as schools, churches and businesses.

Cannon Street Arts Center, home of PURE Theatre. Image Courtesy of OCA.

Future rendering of the Albert Simons Center for the Arts, The College of Charleston. Image courtesy of The College of Charleston and Liollio Architecture.

Martha and John M. Rivers Performance Hall at the Gaillard Center. *Image* courtesy of The Gaillard Center.

The City of Charleston is home to numerous arts venues, including art galleries, theatres, auditoriums and playhouses. The Gaillard Center serves as the city's premier venue for performing arts, and underwent extensive renovations from 2012-2015 to add the 1,800 seat Martha and John M. Rivers Performance Hall, a 15,000 square foot Exhibition Hall, and three floors of City offices.vii The City Gallery at Waterfront Park, The Halsey Institute of Contemporary Art at The College of Charleston, The Gibbes Museum, Redux Contemporary Art Center, and numerous smaller galleries showcase the work of talented artists, many of whom call Charleston home.

The College of Charleston's Albert Simons Center for the Arts will soon begin significant renovations including the addition of a new black box theatre. viii The College's Sottile Theatre on King St. is also currently undergoing renovation and is expected to reopen in 2021. The Cannon Street Arts Center, a converted historic church in Cannonborough-Elliotborough, has been managed by the City's Office of Cultural Affairs since 2016 and hosts PURE Theater Charleston. The Cultural Arts Center of Charleston recently relocated to Citadel Mall in West Ashley, and offers family performances, educational programs, and community events.ix Other important arts venues include the Dock Street Theatre, Memminger Auditorium, Charleston Music Hall, Woolfe Street Playhouse, Music Farm, 34 West Theater Company, Queen Street Playhouse and The Pearl West Ashley Theatre Center.

#### **SPECIAL EVENTS AND ATTRACTIONS**

Festivals and cultural events in the city include Spoleto USA, Piccolo Spoleto, MOJA Festival, Charleston Food and Wine Festival, Charleston Fashion Week,
Southeastern Wildlife Exposition, and the
Cooper River Bridge Run. Other important
attractions include the South Carolina
Aquarium, The Charleston Museum (the
nation's oldest museum), The Children's
Museum, Charles Towne Landing Historic
Site, the future International African
American Museum (opening in 2022),
Family Circle Cup Stadium on Daniel
Island, and Joseph P. Riley Jr. Park,
home of the Charleston Riverdogs baseball
team. Other local sports teams include the
Charleston Battery soccer team and the
South Carolina Stingrays ice hockey team.

#### **HISTORY**

Charleston contains many areas that are historically and culturally important. The protection, enhancement and preservation of properties and areas of cultural and archaeological significance is critical to preserving Charleston's unique sense of place.

Indigenous Land. Indigenous people lived in the area for thousands of years before European conquest. Some of the groups in the area included the Stono, Edisto, Kiawah, Wando, Sewee, and Etiwan. These groups farmed a variety of crops, established complex trade routes, and produced elaborate tools, pottery, jewelry and clothing. Many names familiar to modern Charlestonians (Yemesse, Edisto, Stono, Wando, Chicora, among many others) were derived from indigenous words or names. Indigenous populations saw a dramatic decline after European colonization beginning in 1520 due to disease, enslavement, and other violence. While many entire indigenous groups around the state have been lost, several are still present and active today, including the Catawba, Cherokee, Pee Dee, Chicora, Edisto, Santee, Yamassee, and Chicora-Waccamaw.x

Charleston. Established by the English in 1670, Charleston is South Carolina's oldest incorporated city and is also among the oldest in the country. Downtown Charleston is known for its well-preserved seventeenth and eighteenth century architecture. The Old and Historic District on the Charleston Peninsula is the first historic district in the United States and was established by local ordinance in 1931, three decades before the U.S. Federal Government began offering its own designation. Numerous sites, districts, and other landmarks on the National Register of Historic Places are located throughout the city.

The City's 2008 Preservation Planxi highlighted the integral role that historic preservation plays in the City's approach to planning and development, and made recommendations including:

- Retaining long-standing communities through affordable housing tools;
- *Promoting* a dense and diverse urban community on the Charleston Peninsula;
- *Promoting* high-quality architecture throughout the city;
- *Promoting* environmental and cultural sustainability in the built and natural environment when considering planning and development decisions.

The Preservation Plan also recognized the archaeological significance of Charleston and the educational value and benefit to identifying and understanding archaeological resources related to various historic time periods, diverse cultures, historically marginalized groups, and various socioeconomic contexts. The City has studied the potential for an archaeological ordinance that would provide preservation standards to protect archaeological resources. To implement such an ordinance would require additional staff and resources.

# AFRICAN AMERICAN CULTURE AND HISTORY

Each of the aspects that collectively make up the Charleston and Lowcountry cultural identity: the cuisine, agriculture, iconic buildings and streets, abundant churches, handmade goods, arts, crafts and music, are the lasting contributions of generations of African American Charlestonians and the Gullah Geechee people. They are tied directly to Charleston's legacy of slavery and its aftermath. Charleston is also home to several prominent Civil Rights leaders and campaigns that shaped the entire movement.

"RACE AND POLITICS HAS BEEN ENTANGLED WITH THE AZALEAS, LIVE OAKS, AND CRAPE MYRTLES FOR DECADES, OFTEN CHOKING OFF BLACK MEMORIES OF THE PAST." KYTLE, E.J. AND ROBERTS, B., "DENMARK VESEY'S GARDEN" XII

Despite this rich legacy, the contributions and experiences of the African-American people and communities that have made Charleston what it is today and continue to enrich our community have too often been left out of cultural heritage preservation efforts.

During Reconstruction and the Jim Crow Era, early preservation efforts championed a romanticized version of Charleston's story that downplayed slavery, elevated the elegant lifestyles of its white slaveholders, and gave prominence to Confederate leaders. Attempts to change the historical landscape to be more inclusive of the African-American experience did not gain momentum until the late 20th century as on outcome of the Civil Rights movement.xiii Significant strides have been made since, but there remains a need to tell a more complete story of Charleston's past – and present – by

#### **CULTURAL RESOURCES**





The International African American Museum, expected to open in 2022, "strives to foster empathy and understanding, empowering visitors with the knowledge of the past." xvi Image courtesy of the International African American Museum.

The Avery Center for African American History and Culture at the College of Charleston occupies the site of the former Avery Normal Institute, which served as "a hub for Charleston's African-American community from 1865–1954 that trained its students for professional careers and leadership roles." xvii Image courtesy of the College of Charleston's Avery Research Center for African American History and Culture, photograph by Liz Vaughn, Charleston, South Carolina, ca. 2010.

continuing to promote and invest in the preservation and celebration of African American historic and cultural heritage.

The International African American Museum (IAAM) is currently under construction in Gadsdenboro on the Charleston Peninsula, in the same location where nearly half of all enslaved people brought to North America during the 18th and early 19th centuries first set foot in the U.S.xiv Opening in 2022, the museum will host exhibitions, the African American Memorial Garden, and the Center for Family History, where visitors can trace their genealogy using the Museum's resources.xv Other existing institutions working to preserve and highlight African American history and culture in the area include the African American Settlement Community Historic Commission, the Avery Research Center for African American History and Culture at the College of Charleston, the Gullah Geechee Cultural Corridor, the Gullah Geechee Chamber of Commerce, the Gullah Society, the Center for Heirs Property Preservation, the Old Slave Mart Museum and the Progressive Club.

# HISTORIC AFRICAN-AMERICAN SETTLEMENT COMMUNITIES AND NEIGHBORHOODS

One time sensitive opportunity to protect and elevate African-American cultural heritage in Charleston is through the recognition and preservation of historic African-American settlement communities and neighborhoods. During Reconstruction (1865-1877) and through the early 20th Century, the majority of freed Gullah Geechee people and their descendants settled in communities throughout the Lowcountry. Several communities were established formally through land cooperatives and planned subdivisions, such as Maryville/ Ashleyville in West Ashley, which originated as a planned neighborhood in 1885 and organized to form the Town of Maryville (1886-1936). Many other communities formed organically through concentrated patterns of private land acquisition. Some communities that now consist primarily of tenants (formed in the wake of Urban Renewal and public housing construction) are no longer defined through land ownership, but by their ancestral connections to the land.

Though the origins and physical landscape vary, common defining features of settlement communities are their shared history, identity, and cultural institutions such as schools, churches and businesses.

In the wake of rapid gentrification and mounting development pressures, some of these communities have since been lost to private land sales, redevelopment, and heirs property suits; but many of these communities are still intact today and are the proud home to the descendants of their original founders. Several communities such as Maryville/Ashleyville, Red Top and Sol Legare have made significant strides to document their histories. However, the majority of settlement communities and neighborhoods around the City of Charleston have been excluded from past surveys, plans or studies; and/or have not been recognized for their historical and cultural significance.

Recent initiatives led by community leaders and organizations, academic institutions and other jurisdictions (Charleston County and the Town of Mt. Pleasant) have contributed to a growing body of research and historical recognition of several communities. Preliminary research completed for the City Plan builds on these efforts and recognizes historic African-American settlement communities and neighborhoods within and adjacent to the City of Charleston's Urban Growth Boundary (UGB) - both informal settlements and formal planned neighborhoods - that still maintain a shared identity and connection to their past. Due to their rich history and contributions to our region, the City Plan acknowledges these communities as significant cultural resources that are worth protecting and investing in; and whose residents are entitled to agency and authority regarding future development and investment.

#### **METHODOLOGY**

The information presented in this section builds off existing documentation and incorporates preliminary research guided by interviews and conversations with individuals from various settlement communities. Whenever possible, information was cross-referenced with historical surveys and current property ownership records to inform approximate boundaries. Persistent efforts were made to include all communities and ensure accurate representation. However, there were many limitations to the research and it is not comprehensive. A more thorough survey is necessary to build on and further confirm the information presented.

The City Plan does not establish a strict definition for what constitutes a settlement community. However, the characteristics of settlement communities below emerged through conversations with community members and archival research.

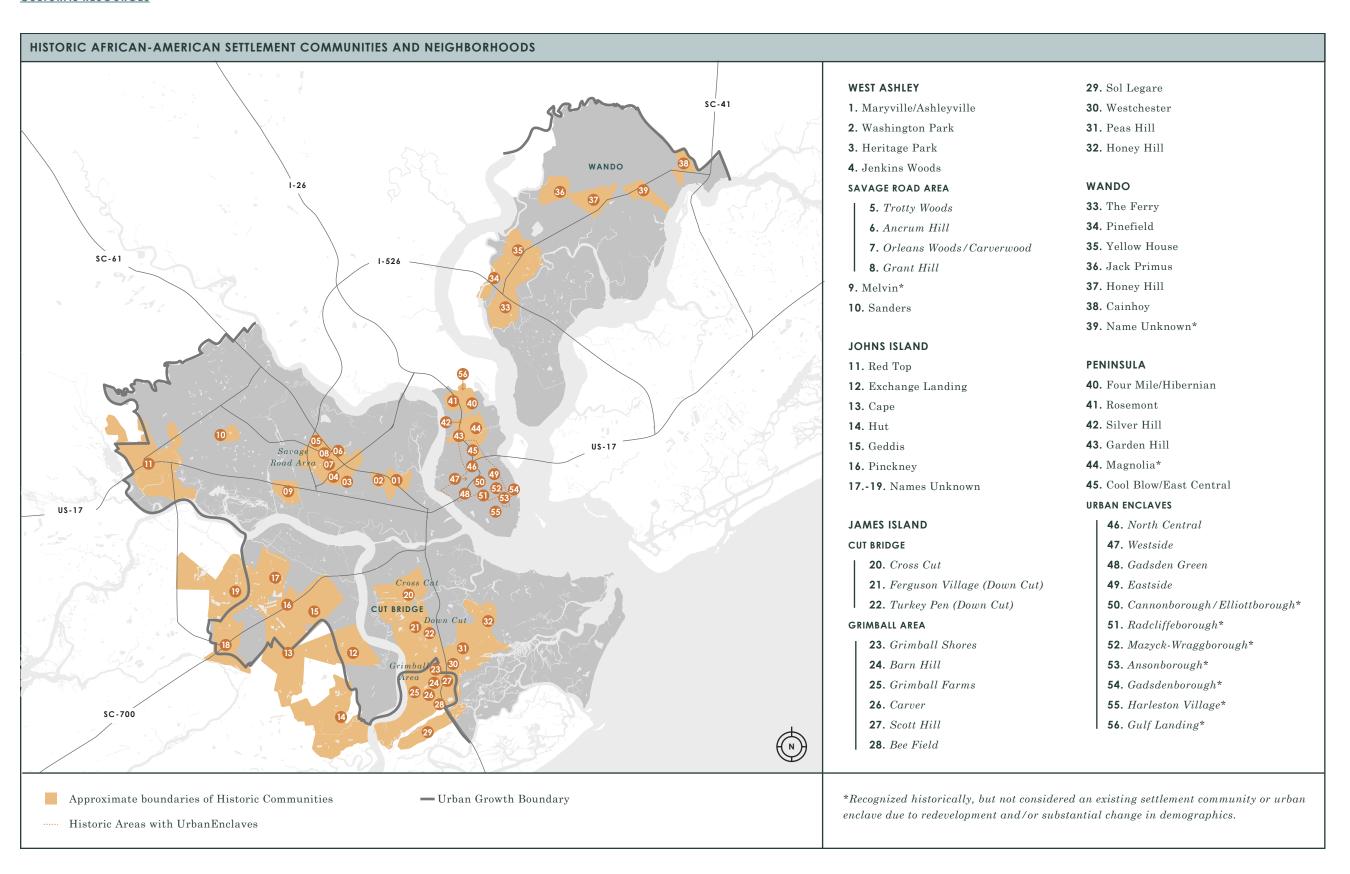
Historic concentrations of African-American households in a particular geographic area, especially during the late 19th century/early 20th century and extending into the mid-century;

History of community autonomy: shared hyper-local economy and civic institutions such as churches and schools;

Concentrations of family property that has been passed down through generations, often including heirs property.

#### **COMMUNITIES AND NEIGHBORHOODS**

The Charleston City Plan recognizes at least 56 historic settlement communities and neighborhoods. Included in this count are numerous communities on the Peninsula whose context and timeline are distinct from other settlement areas, but nonetheless



should be recognized as significant cultural resources due to their strong familial, historical and cultural ties to settlement communities and the legacy they all collectively represent. These neighborhoods are identified here using the term "Urban Enclaves," which denotes that they were predominantly white or integrated when established but throughout the 20th Century included thriving enclaves of African-American residential and cultural districts.

The preceding map displays all known historic African-American settlement communities and neighborhoods within and adjacent to the City of Charleston's Urban Growth Boundary (UGB). Historic boundaries in

most cases are approximate and community names are those contemporary to the individuals that informed the research (when more formal documentation was not available). The general areas of the historic communities were informed by property surveys, plats (when available) and USGS topography maps spanning from the late 1800's to the late 1930's. The approximate expanse of existing communities are also included on the Future Land Use Maps in the Land Use element. It should be noted that many of the communities identified in this plan are technically outside of City limits in either unincorporated Charleston County, Berkeley County or the Town of James Island.

#### CULTURAL RESOURCES RECOMMENDATIONS



#### 01.

Build, maintain and preserve an array of high quality cultural facilities and sites, especially in areas of the city with less access to existing cultural resources.

#### 02.

Support policies, incentives and plans that stimulate historic preservation, restoration and reuse of cultural resources, especially resources relating to African American heritage and history.

#### 03.

Encourage public and private investment in the growth and development of Charleston's arts community.

#### 04.

Support development of community plans for settlement communities within corporate City limits that outline future goals related to preservation, investment and development; and recommendations for policies and other strategies for achieving those goals.

#### 05.

Work with neighboring jurisdictions to elevate the voices and concerns of settlement communities in ongoing conversations related to preservation, resiliency, gentrification and displacement, and future development and infrastructure projects.

#### 06.

Identify and protect significant sites citywide, including historic houses of worship, cemeteries and burial grounds, that contribute to Charleston's identity and represent its history; especially those sites significant to African-American heritage and history.

#### 07.

Increase the amount of markers and monuments documenting sites and key figures culturally and historically significant to Charleston's African-American and other underrepresented communities.

#### 08.

Uphold historic preservation as a form of sustainable development by promoting and creating incentives for rehabilitating and adapting historic buildings for new uses.

#### 09.

Update and maintain a cultural resource inventory to evaluate the status of known cultural resources, identify under-documented and/or threatened cultural resources - especially in African-American settlement communities, and prioritize documentation needs and designation recommendations.

#### 10.

Conduct a new historic resources survey for all appropriate parts of the City, especially the Upper Peninsula.

#### 11.

Strengthen policies and allocate resources to address demolition by neglect of historic properties.

#### 12.

Reevaluate the feasibility of an archaeological ordinance for the City.

i "The Gullah Geechee People." Gullah Geechee Cultural Heritage Corridor Commission. Access May 2021. https://gullah-geecheecorridor.org/thegullahgeechee/

ii Interview with J. Martin-Carrington, Board Member of the Gullah Society.

iii Adapted definition from the Center for Heirs Property.

 $<sup>^{\</sup>mathrm{iv}}$  "Native American and Indigenous Peoples FAQs." UCLA Equity, Diversity and Inclusion, Accessed May 2021. https://equity.ucla.edu/know/resources-on-native-american-and-indigenous-affairs/native-american-and-indigenous-peoples-faqs/#whoareind

v Foner, E.. "Reconstruction." Encyclopedia Britannica, September 10, 2020. https://www.britannica.com/event/Reconstruction-United-States-history.

 $<sup>^{</sup>m vi}$  2019-2020 Annual Report. Report. Office of Tourism, College of Charleston. 2020. Accessed Fall 2020. https://sb.cofc.edu/centers/tourismanalysis/annualreports/otaannualreport20192020.pdf.

vii "Charleston Gaillard Center." Charleston Gaillard Center. May 10, 2021. Accessed May 11, 2021. https://gaillardcenter.org/.

 $<sup>^{\</sup>mathrm{ix}}$  "Best Theater Entertainment in Charleston: CACC." Cultural Arts Center. Accessed May 11, 2021. https://www.cartscc.com/.

x "SC Indians – Native Americans in South Carolina." SC Indian Tribes - Native Americans in South Carolina. Accessed May 12, 2021, https://www.sciway.net/hist/indians/.

xi United States. City of Charleston, SC. Department of Planning, Preservation, and Sustainability. 2007 Preservation Plan. 2007. Accessed Fall 2020. https://www.charleston-sc.gov/891/Preservation-Plan.

xii Kytle, Ethan J., and Blain Roberts. Denmark Vesey's Garden: Slavery and Memory in the Cradle of the Confederacy. New York: New Press, 2018.

xiii Ibid.

xiv Ibid.

xv "About." IAAM Center for Family History. Accessed May 2021. https://cfh.iaamuseum.org/.

xvi Ibid.

xvii "About." Avery Research Center. Accessed May 11, 2021. https://avery.cofc.edu/about/.

xviii Hamilton, Diane. Maryville, The Audacity of a People. US: Bookbaby. 2021.

xix New South Associates. Charleston County Historic Resources Survey Update. September

Economic Development includes historic trends and projections on the numbers and characteristics of the labor force, where the people in the community work, where people who work in the community reside, available employment characteristics and trends, an economic base analysis and any other matters affecting the local economy.

> The City of Charleston is the urban center of a rapidly growing regional economy that has experienced significant changes in recent decades. New jobs have brought an influx of new residents and the economy has diversified to include more manufacturing, information technology and other industries; a shift from the previous reliance on military and tourism. The increase in jobs has led to an overall increase in median wage for Charleston residents, but racial income disparities have worsened and wages are still not keeping up with cost of living. Additionally, the recession caused by the pandemic hit many core industries hard, most notably the hospitality sector, which provides almost one-third of Charleston jobs. As the economy rebuilds, Charleston has an opportunity to promote inclusive economic vitality and health in all areas of the city, that leverages its wealth of cultural and natural resources, increases wages and opportunities for all residents, and closes racial wealth gaps.

#### **EMPLOYMENT**

The city hosts 7,353 unique businesses employing approximately 121,388 people. The largest employment sector in the City of Charleston is healthcare and social assistance, employing 35,413 persons, of which 28,884 work on the Peninsula. The second largest sector is accommodations

(hotels) and food service, which employs approximately 13,863 persons citywide, with 9,710 on the Peninsula. The largest single employers in the city, all located downtown, include the Medical University of South Carolina, Roper St. Francis Healthcare and the College of Charleston.

01 Medical University of South Carolina13,00002 Roper St. Francis Healthcare5,50003 College of Charleston2,000	EMPLOYER	TOTAL JOBS*
	01 Medical University of South Carolina	13,000
03 College of Charleston 2 000	<b>02</b> Roper St. Francis Healthcare	5,500
2,000	03 College of Charleston	2,000

\*in 2019

TOP FOUR JOB CREATORS 2013- 2018				
CONSTRUCTION TRADE WORKERS		FOOD AND BEVERAGE		
43% INCREASE	4,155 NEW JOBS	21% 6,872 INCREASE NEW JOBS		
RESEARCH AND MANAGEMENT		BACK		
57% INCREASE	2,313 NEW JOBS	49% INCREASE	4,149 NEW JOBS	

**KEY TERMS** 

Cost of Living includes the amount of money a household needs to cover basic expenses such as housing, utilities, transportation, healthcare, food and other necessities.

Economic Equity or inclusive growth, is the full inclusion of all groups in an area's economic growth and prosperity, regardless of socioeconomic status; which requires addressing economic injustices at the root causes and creating opportunities for all.

Job Centers are areas that are primarily commercial, with a specific focus on industries that generate a wide variety of jobs, such as manufacturing, warehousing, office and some commercial. Job centers can also serve as incubators for small and entrepreneurial husinesses

**Living Wage** is the hourly rate that an individual in a household must earn to support his/her/theirself and their family, assuming the sole provider is working full-time (2,080 hours per year).

Median Household Income is the household income for the median-or middle- household in a region. If you were to line up each household in the area in order from lowest to highest income, the household in the middle of the line would be the median household. Income can include non-wage income.

Median Wage is the middle wage (what someone is paid for work) in a region, based on annual wage reports. If you were to line up each wage earned in order from lowest to highest, the wage amount in the middle of the line would be the median wage.

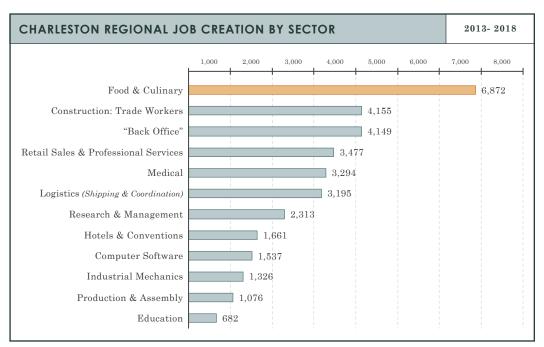
Mixed-Use Centers is an area where there is a mix of residential and commercial uses, and sometimes cultural, institutional and entertainment uses as well.

Multi-Modal refers to having access to multiple ways (modes) to move around an area - including by personal vehicle, bike, transit, walking and other modes.

The city is also a leader in professional, scientific and technical services with 942 unique business employing 6,356 people. Those businesses include architecture firms, engineering firms, computer system design firms, and other professional practices. This category employs only 5.2% of the city's workforce, but typically offers more higher-paying jobs.

Recent trends in job creation indicate a continued growth in accommodations and food, as well as construction, retail, manufacturing and technology industries. Between 2013-2018, the Food & Culinary industry led in total number of new jobs, but Research and

Source: Charleston Regional
Data (charlestonregionaldata.com/fastest-growingoccupations).



Management, Administrative Services and Construction Trade grew the most by percent increase.

#### **WAGES**

During engagement, one of the primary concerns voiced by community members was the high cost of living and low wages. In the Southeast region, Charleston comes in second to Washington, DC, where the median household income is 28% higher.<sup>ii</sup>

The hourly median wage from 2010 to 2019 increased by 17%, from \$15.30 to \$18.00 per hour, or from \$31,824 to \$37,440 annually. The living wage for one working adult with one child in the Charleston MSA is calculated to be approximately \$31.99/hour or approximately \$66,539 annually. The Area Median Income (AMI) for the 2020-2021 period, which can include non-wage income, was \$56,700 for a single-individual household in the Charleston Metropolitan Statistical Area (MSA). Median family incomes have risen by about 28% since

2010 but white households have seen a disproportionate actual increase compared with black households as the racial income gap has widened significantly over the past decade (by roughly 39%).

Though some area job sectors (such as the healthcare and business/financial) provide opportunities for higher-wage jobs, the city's second largest employment sector – food and beverage – provides an annual median income of only \$20,612. Moving forward there will need to be further study into how the city can recruit and support employers that pay wages more consistent with the cost of living and attract a more diverse workforce. Additionally, affordable housing and transportation will continue to be important to support a sustainable and equitable economy rooted in diversity.

#### **KEY TRENDS**

Though the peninsula serves as the primary cultural and economic hub in Charleston,

MEAN AND MED	2010- 2019			
	MEDIAN HOURLY WAGE	MEAN HOURLY WAGE	ANNUAL MEAN WAGE	ANNUAL MEDIAN WAGE
2010	\$15.30	\$19.21	\$39,960.00	\$31,824.00
2011	\$15.59	\$19.64	\$40,850.00	\$32,427.20
2012	\$15.73	\$19.80	\$41,180.00	\$32,718.40
2013	\$15.92	\$20.25	\$42,130.00	\$33,113.60
2014	\$16.17	\$20.56	\$42,770.00	\$33,633.60
2015	\$16.52	\$20.94	\$43,560.00	\$34,361.60
2016	\$16.81	\$21.39	\$44,500.00	\$34,964.80
2017	\$16.90	\$21.62	\$44,970.00	\$35,152.00
2018	\$17.42	\$22.21	\$46,200.00	\$36,233.60
2019	\$18.00	\$22.98	\$47,800.00	\$37,440.00

Source: North American Industry Classification System (NAICS)

each area of the city is unique in its economic environment and potential for future growth.

The Peninsula is a center of commerce and a job center for the region. Its leading job sectors include the medical and social assistance sectors, accommodations and food service, and retail trade. Future opportunities for the peninsula include the proposed Lowcountry Rapid Transit route, which can increase the area's capacity to serve as a job center; the new Charleston Tech Center, which can connect more people with job training and access to higher-paying jobs; and the redevelopment along Morrison Drive and the Upper Peninsula, bringing a new generation of office space.

West Ashley contains a mix of local and national establishments that line its commercial corridors. The largest job sector is retail trade. Other sectors that make up the bulk of employment include healthcare and social assistance, and accommodations and food service. Plan West Ashley noted that approximately

86% of all residents in West Ashley leave to go to their jobs elsewhere. Recent trends indicate that the employment sector in West Ashley is diversifying away from the traditional suburban retail to other sectors. With the Epic Center Planned Unit Development (PUD), the growing presence of the healthcare industry, and several other office developments in West Ashley, the market appears to be shifting to a more balanced mix of office and retail. This will support the efforts to provide opportunities for people to live within walking distance to employment, services and cultural centers.

James Island has two main commercial thoroughfares, Folly Road and Maybank Highway. Other smaller nodes exist on Harbor View Road and Camp Road. The largest employment sector is retail trade, followed by the accommodations and food service sector. The remainder of employment is in healthcare, education and legal services. Recent efforts to bring "complete streets" and increase mobility along Folly Road (ReThink Folly Road plan) and Maybank

WAGE STATISTICS BY OCCUPATION			2019
OCCUPATION TYPE	TOTAL EMPLOYMENT	MEDIAN HOURLY WAGE	MEAN HOURLY WAGE
ALL OCCUPATIONS	359,310	\$18.00	\$22.98
ARCHITECTURE & ENGINEERING	8,060	\$37.22	\$39.35
ARTS, DESIGN, ENTERTAINMENT, SPORTS, & MEDIA	3,440	\$21.15	\$24.16
BUILDING/GROUNDS CLEANING & MAINTENANCE	12,720	\$11.75	\$12.99
BUSINESS & FINANCIAL OPERATIONS	18,240	\$30.30	\$32.91
COMMUNITY & SOCIAL SERVICE	3,590	\$19.84	\$22.22
COMPUTER & MATHEMATICAL	11,300	\$37.75	\$39.16
CONSTRUCTION & EXTRACTION	16,680	\$19.54	\$21.69
EDUCATION, TRAINING, & LIBRARY	14,820	\$22.76	\$24.16
FARMING, FISHING, & FORESTRY	290	\$17.13	\$18.15
FOOD PREPARATION & SERVING RELATED	40,320	\$9.91	\$11.68
HEALTHCARE PRACTITIONERS & TECHNICAL	26,010	\$31.40	\$36.98
HEALTHCARE SUPPORT	11,070	\$14.41	\$15.01
INSTALLATION, MAINTENANCE & REPAIR	15,730	\$21.76	\$22.79
LEGAL	3,010	\$26.69	\$38.93
LIFE, PHYSICAL & SOCIAL SCIENCE	1,950	\$29.78	\$33.09
MANAGEMENT	15,490	\$48.21	\$54.76
OFFICE &ADMINISTRATIVE SUPPORTS	47,500	\$17.34	\$18.54
PERSONAL CARE & SERVICE	9,340	\$11.10	\$14.02
PRODUCTION	21,660	\$19.38	\$20.82
PROTECTIVE SERVICE	7,630	\$19.28	\$20.58
SALES & RELATED	38,370	\$13.34	\$18.27
TRANSPORTATION & MATERIAL MOVING	32,110	\$14.43	\$16.75

Source: North American Industry Classification System (NAICS)

REGIONAL COST OF LIVING COMPARISON					2019		
METRO AREA	COMPOSITE INDEX	GROCERY ITEMS	HOUSING	UTILITES	TRANSPORT	HEALTHCARE	MISC GOODS
01 WASHINGTON, DC	152	114	241	106	135	88	106
02 CHARLESTON AREA	112	106	137	102	94	98	104
03 ATLANTA, GA	108	99	112	104	123	92	100
04 ASHEVILLE, NC	106	103	124	97	83	115	102
05 VIRGINIA BEACH, VA	106	100	116	97	98	109	102
06 CHARLOTTE, NC	99	99	99	98	98	100	99
07 RICHMOND, VA	95	98	93	99	83	98	105
08 JACKSONVILLE, FL	94	99	78	103	101	97	100
09 MYRTLE BEACH, SC	85	97	65	102	79	99	100

Highway present opportunities to create unique economic environments and support new businesses along its key commercial corridors.

Johns Island is a primarily rural island, with the majority of the commercial activity concentrated along the Maybank Highway corridor, and at intersections of River Road and Main Road. The majority of the market is construction and retail. As the area's population grows, new commercial activity is expected to support the growing population and provide needed services. The area is expected to see an increase in professional and medical offices, and retail or food service. As commercial activity increases, there should be an emphasis placed on mixeduse centers and multi-modal connections to the residential areas.

The Cainhoy Peninsula includes the communities of Wando and Daniel Island, two distinct but geographically linked areas. The largest employment sector in this area is information (software publishing,

media production, and telecommunications). Other major sectors include construction and retail. The Clements Ferry Road corridor is already lined with pockets of industrial and commercial properties and has the potential to become a major job center. Similar to Johns Island, new commercial activity is expected to support the growing population and provide needed services. With its proximity to I-526 and the Port of Charleston, this area has the potential to support increased jobs in manufacturing and logistics. As commercial activity increases, there should be an emphasis placed on mixed-use centers and multimodal connections to the residential areas.

#### **EQUITABLE ECONOMIC DEVELOPMENT**

During engagement, community members expressed a lot of interest in having more support for locally-owned businesses in all areas of the city, more affordable commercial space and a more diversified economy that provides a wide range of jobs with quality wages. Residents also emphasized the

Source: City of Charleston 2020 Adopted Budget, p.48 (Note: Index sets 100 as a baseline for comparison in the region. Values above 100 are considered above average and values below 100 are below average.)

importance of have housing – affordable to all income levels – close to where people work, and for more options to get places without needing to drive. Primary concerns were related to commuting options, racial and income inequality, unaffordable housing and low wages.

IN RESPONSE TO A SURVEY QUESTION ABOUT REASONS FOR LIMITED JOB OPPORTUNITIES, THE PERCENTAGE WHO SELECTED 'LACK OF ACCESS TO LOANS' (BOTH FOR BUSINESS START-UP AND CONTINUING EDUCATION) WAS DOUBLE FOR BLACK/AFRICAN-AMERICAN RESPONDENTS; AND 'LACK OF ACCESS TO RELIABLE TRANSPORTATION' WAS DOUBLE FOR YOUTH AND LOWER-INCOME RESPONDENTS.

Historic and current lack of access to capital for Black and African American individuals has contributed to extreme income inequality and significant disparities in business ownership. In South Carolina, eleven percent (11%) of African American households own a business compared to twenty (20%) of White households. In the City of Charleston, the business valuation for African American business owners is \$61,047, compared to \$346,092 for White business owners. Blackowned businesses were also some of the hardest hit during the pandemic. To support a robust and equitable economy that attracts a diverse workforce, the city will need to

intentionally address the business success rate disparity with minority-owned businesses to not only recover from the pandemic, but flourish at historic levels.<sup>iv</sup>

One Region, a coalition led by the CRDA, BCDCOG and the Metro Chamber, was launched in May 2016, to build global competitiveness, prosperity and inclusion across the Tri-county region. One Region is leading the creation of re | IGNITE, a coordinated plan that provided guidelines to businesses in the Charleston region on how and when to safely reopen post COVID, and is also working to address equity and economic momentum in the region.

Though the City of Charleston does not have a dedicated office to support economic development in the city, the Business and Neighborhood Services division offers limited programming and support for local businesses. The Minority & Women-Owned Business Enterprise Office works to ensure equitable access to City contracts, to assist existing business owners in growing their enterprise, and provide information on skill based training opportunities. With additional staff capacity and resources, the City of Charleston could build on existing efforts and play a more prominent role in advancing One Region strategies to advance equity and economic momentum in the region.

Data cited throughout this section comes from the North American Industry Classification System (NIACS), the American Community Survey (ACS), and City of Charleston business license data.

#### **ECONOMIC DEVELOPMENT RECOMMENDATIONS**



#### 01.

Enhance Charleston's role as a regional job center by supporting employment, small business development and sustainable tourism through policies and programs that promote the unique character and sense of place of each area of Charleston and invest in cultural and natural resources.

#### 02.

Evaluate the feasibility of dedicating additional staff and resources (i.e. an Office of Economic Development) to create targeted goals for each area of the city, and work with corresponding economic development offices in Charleston and Berkeley counties to unify approaches to regional economic development.

#### 03.

Encourage expansion of job training centers for coding, advanced manufacturing, nursing, culinary skills, and independent business management.

#### 04.

Evaluate the feasibility of a partnership with Trident Technical College at its downtown Palmer Campus to offer training in above items due to proximity to future Lowcountry Rapid Transit.

#### 05.

Pursue policies and programs to support independent, locally-owned businesses and allow for competition with larger national chains; including creating programs or incentives for preserving legacy businesses and affordable commercial properties, and providing targeted support to navigate the City's licensing and permitting processes.

#### 06.

Focus on transit oriented business incentives for offset in parking, business fees, or other fees associated with opening businesses.

#### 07.

Increase access to fresh and quality food by attracting grocery stores to food deserts, expanding opportunities for food markets, and promoting small neighborhood groceries like corner stores on the Peninsula.

#### 08.

Relax development requirements, such as parking thresholds or licensing, for neighborhood scale retail and restaurants in areas designated as City Centers, Neighborhood Edge and certain Neighborhood areas to encourage a mixture of uses in neighborhoods.

#### 09

Continue to create tailored training and support programs for women and minority owned businesses.

#### 10.

Continue to coordinate with neighboring jurisdictions to implement economic development recommendations in Plan West Ashley, Epic Center, ReThink Folly Road and the Johns Island Community Plan.

#### 11.

Encourage development and redevelopment in areas designated as City Centers as vibrant mixed-use centers providing employment, entertainment, and housing.

#### **12.**

Create incentives for commercial properties still in the County, but surrounded by the City to annex into the City of Charleston.

#### 13.

Work with adjoining jurisdictions to encourage a mix of services and employment types in existing commercial centers and areas designated as Neighborhood Edge or Job Center, and ensure connections with residential neighborhoods to provide basic services and employment to those living in close proximity.

#### 14.

Develop policies, programs, tools and resources to attract and recruit a racially diverse workforce in the City of Charleston and to promote an economy that provides a variety of jobs paying living wages.

#### **15.**

Explore opportunities to support new commercial and mixed-use developments to enter into community benefit agreements or other commitments to hiring residents from the surrounding neighborhoods.

#### 16.

Update the city's Tourism Management Plan in a manner that will improve livability for Charleston's citizens while recognizing the importance and economic impact of tourism.

<sup>&</sup>lt;sup>i</sup> ESRI Business Summary. Accessed April 20, 2020. Raw data. ESRI, Charleston.

ii City of Charleston Adopted Budget 2020, p.48

iii Living Wage Calculator. Massachusetts Institute of Technology. Accessed May 2021. https://livingwage.mit.edu/metros/16700

iv Special Commission on Equity, Inclusion and Racial Conciliation Final Report (draft dated July 2021).

#### **TRANSPORTATION**

Transportation considers transportation facilities including major road improvements, new road construction and pedestrian and bicycle projects; and should be developed in coordination with the Land Use Element to ensure transportation efficiency for existing and planned development.

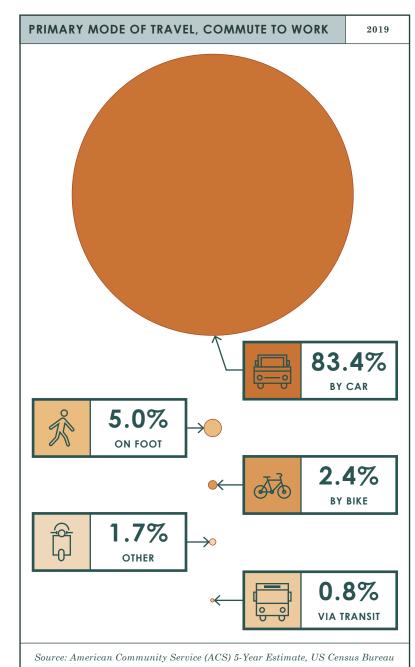
Charleston's transportation networks have both shaped and been shaped by its unique land and waterscape, its history and culture, the economic role the city plays in the region, and by where people live, work and play. As the city – and region – evolves to accommodate a rapidly growing population and confront flooding and sea level rise, mobility must remain a top priority to improve quality of life for all residents.

Today, most Charleston residents travel in a personal vehicle, with 76% of commuters driving alone. Only 8% of commuters walk, bike or use transit. The reliance on car travel strains roadways during peak travel times, and safe and convenient options for alternative modes are limited. The State of South Carolina ranks in the top 10 for pedestrian and cyclist fatalities, a sobering statistic that is disproportionately high among lower income communities and communities of color. Our roadways need to be equitable for all mobility uses and provide a dignified and safe way to use them.

During City Plan engagement activities, people expressed the desire for more options to get places without needing to drive. Over 65% of City Plan community survey respondents said they would bike or

walk as their primary mode of transportation if they had a safe and convenient way to do so. People without access to a personal vehicle must rely on public transportation infrastructure, which may limit their options for where they can live or work.

A more connected city - via safe walkable and bikeable streets and greenways; and a quality transit system - could reduce traffic, get people active, and improve overall quality of life. The City and region have increasingly invested in multi-use trails, bicycle lanes, and park-and-ride facilities. With the growing population and constraints posed by Charleston's land and waterscape, these continued investments will be critical moving forward to support alternative means of transportation and help reduce automobile traffic. Additionally, a shift



#### **KEY TERMS**

Bioretention Basins, Bioswales and Rain Gardens are planted depressions of varying sizes and degrees designed to retain or detain stormwater before it is infiltrated or discharged downstream.

Complete Streets provide supports and amenities for all modes of transportation, including walking, cycling, and vehicles. They are designed to be public spaces that meet mobility needs and promote equitable access.

**Connectivity** refers to street connections that provide travelers, whether by car, bicycle or by foot, safe and efficient opportunities for trip-making by multiple options.

Equitable Access means that public spaces and amenities, and opportunities for participation, are designed in such a way that responds to the needs of all community members and ensures fair access regardless of race or socioeconomic status.

Last Mile refers not to a specific distance, but the connection between a transportation hub and the traveler's ultimate destination (and vice versa).

**Mobility** is defined as the potential for movement and the ability to get from one place to another using one or more modes of transport to meet daily needs.

Public Right-of-way (ROW) refers to the area on, below or above a public roadway, bicycle lane, sidewalk or other structure that is set aside expressly for the provision and maintenance of transportation infrastructure.

Street Trees are trees that are planted within the public right-of-way.

Transit-Oriented Development is a style of development that emphasizes mass transportation as its main design feature. The developments tend to be higher intensity and density with lower personal vehicle parking counts. They are located along fixed mass transit routes such as bus rapid transit, rail lines, or water transit. Their size and types of uses can vary, though they usually focus on higher density living or high intensity of job center.

Walkability is a measure for how friendly an area is to walking. Factors influencing walkability can include sidewalks, traffic conditions and crosswalks, among others.

# EQUITY STATEMENT FROM CITYWIDE TRANSPORTATION PLAN "

Equity is the intentional elimination of disparities disproportionately impacting marginalized people in a community. It is the joining together to take proactive steps in embracing the complexity of experiences, elevating the potency of inclusion, exposing the creativity in every community, demanding honesty in calling out racism and oppression both overt and systematic and striving to co-empower residents to implement goals. Equity is achieved when no one is blocked from reaching their full potential due to their race, gender, sex, disability, economic position or other socioeconomic determinants.

In Charleston, discrimination and racialized segregation played a major role in creating significant economic, housing and transportation disparities that still have reverberating effects today. Acknowledging that low-income Americans are more likely to use transit, bike and walk in urban areas, it is imperative that the new vision in Charleston does not perpetuate inequities by treating livable communities for these populations as optional or inaccessible. It is important to recognize not only the opportunity to envision a new community building effort for all residents, but also the need to face the challenges that presently exist for all Charlestonians.

away from vehicular travel to other modes will help the City reach its net zero goals to reduce carbon emissions, and its Health in All Policies goals by supporting people to be more active.

# CHARLESTON CITYWIDE TRANSPORTATION PLAN (2018)

In response to the influx of people and businesses, the City of Charleston's Traffic and Transportation Department updated the Citywide Transportation Plan in 2018. The plan provides much needed solutions as well as a long-range vision for Charleston's transportation system that is aimed at improving mobility, mitigating traffic congestion, improving safety for pedestrians, cyclists and vehicular traffic, and enhancement of transportation corridors. The creation of the Citywide Transportation Plan was guided by a community advisory committee, which collected community input through a series of community meetings and online questionnaires. The plan provides an overview of existing conditions, a vision for the future based on community priorities, and a set of specific project recommendations with timeline and budgetary considerations. The plan also outlines a framework for equitable transportation.

While the Citywide Transportation Plan functions as the primary planning tool for Charleston's transportation needs for the coming years, the role of the Charleston City Plan is to provide updates from the past few years and generate recommendations that connect other elements of the plan with transportation priorities already outlined in the Citywide Transportation Plan.

#### **OTHER PLANS**

Other plans that have been incorporated into the Citywide Transportation Plan and continue to guide transportation planning in the region include:

Plan West Ashley (2018), created by the City of Charleston in conjunction with Charleston County, includes a section dedicated to the transportation network in West Ashley and the recommendations for implementing multimodal complete street changes.

People Pedal Plan (2017), created by the City of Charleston's Design Division, addresses the network of streets and sidewalks on the peninsula and how to create a better network for safety.

People 2 Parks (2016), created by the Charleston County Parks and Recreation Commission, addressed how to create an interconnected walking and bicycling network to ensure equitable access to nature and have a long-term vision for active transportation and recreation.

ReThink Folly Road (2016), done as a joint project with the City of Charleston, the City of Folly Beach, the Town of James Island, Charleston County, Charleston Area Transportation Study Metropolitan Planning Organization (CHATS MPO), and the Berkeley Charleston Dorchester Council of Governments (BCDCOG), addresses the transformation of Folly Road into a complete street corridor through intergovernmental cooperation.

Walk Bike Berkeley Charleston Dorchester this task requires collaboration with multip (BCD) (2016), commissioned by the Berkeley-Charleston-Dorchester Council of Governments Charleston and Berkeley Counties, the

(BCDCOG), establishes a vision and work plan for investing in walking and biking to support regional goals of health, safety, economic development, and quality of life.

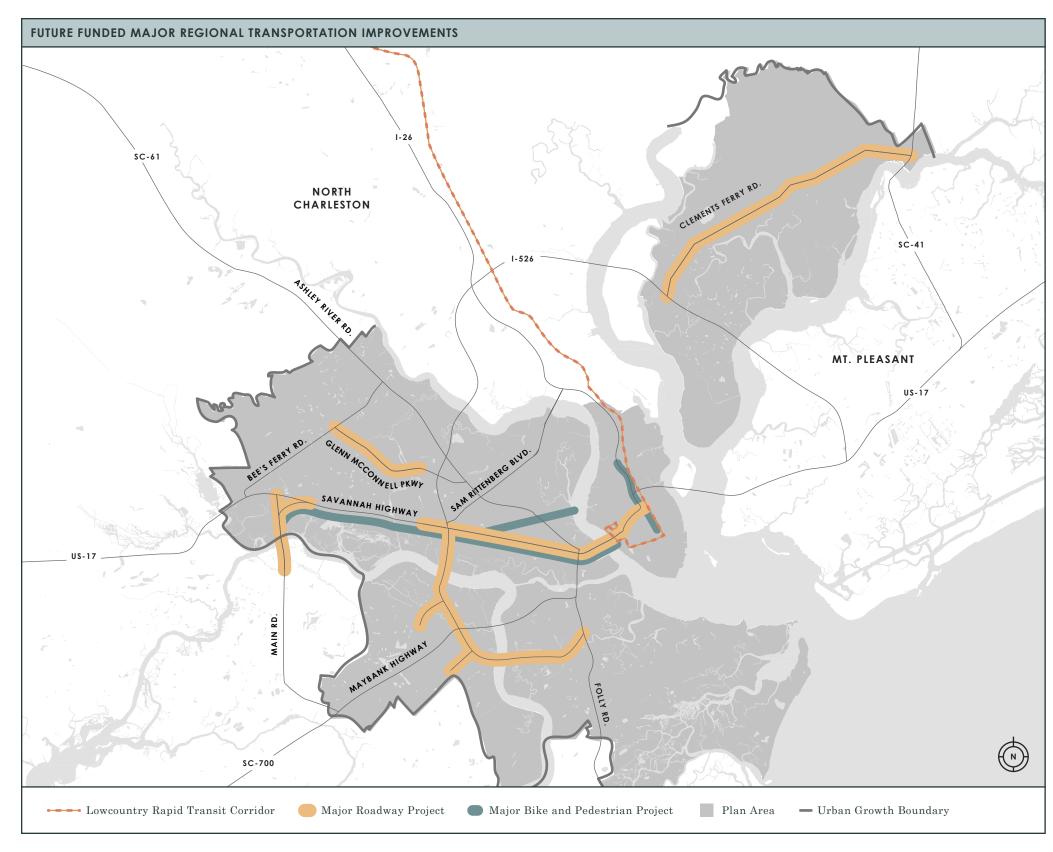
All of the plans take into account that although our region is growing, and the pressure for connectivity grows with it, we look to both alternative means of transit and new technologies to enhance the networks currently used.



#### **RECENT AND ONGOING PROJECTS**

The City of Charleston's Traffic and Transportation department leads the City's efforts to plan for and develop a more equitable street network. Many streets in Charleston's transportation network are not owned or maintained by the City of Charleston, so this task requires collaboration with multiple surrounding jurisdictions, including Charleston and Berkeley Counties, the

Rendering of Ashley River Bridge pedestrian crossing. Source: City of Charleston.



South Carolina Department of Transportation (SCDOT), and the Berkeley Charleston Dorchester Council of Governments (BCDCOG), which oversees mass transit planning for the region and coordinates with all jurisdictions to implement multimodal infrastructure.

In 2021, the SCDOT adopted the Complete Streets Engineering Directive (ED-28). This, along with other policies, provides guidance regarding bicycling, pedestrian and transit accommodations in new transportation infrastructure. The new directive also opens up funding options for multimodal improvements and updates the design manuals used by SCDOT engineers.

In the past decade, the City of Charleston, in collaboration with various agencies, has advanced many alternative modes of transit as viable options for commuting and daily needs. The City has helped to expand connection with existing cycling infrastructure, worked to update development codes to include support for mass transit stops and cycling facilities, and sponsored studies and initiatives to expand bicycle and pedestrian bridges and pathways. Notable recent bike and pedestrian projects include the \$18 million federal BUILD grant, with a local match, for the construction of the first dedicated bicycle/pedestrian bridge to connect West Ashley to the Peninsula; and the Lowcountry Lowline project which repurposes 1.7 miles of abandoned railway track to provide neighborhoods throughout the peninsula with bike and pedestrian connections to parks, transit and affordable housing. The city has also worked to jumpstart the first bus rapid transit corridor in the state to provide an alternative option for the thousands of commuters traveling from the Ladson area to downtown Charleston every day.



Lowcountry Lowline Conceptual Master Plan.  $Image\ courtesy\ of$ Lowcountry Lowline.

#### PEDESTRIAN AND BICYCLE

The Citywide Transportation Plan (CTP) calls for a comprehensive system of sharrows (shared lanes between bicycles and cars), shared use paths, and trails for connection of bicycles and pedestrians across the city. Most recently, the City completed improvements to the intersection of Meeting Street and Brigade Street, including a protected and painted bike lane and signaled crosswalks for pedestrians and cyclists. Another example is the proposed Lowcountry Lowline project, which would which would convert 1.7 miles of abandoned railroad along the central spine of the Peninsula to become a multi-use path and green space for cyclists and pedestrians. Improved connections for cyclists and pedestrians are also critical to provide "last mile" connections

necessary to support mass transit, especially bus rapid transit and prospective waterbased transit options. Currently, City infrastructure for cyclists and pedestrians is primarily funded by the counties or private developers, which limits the City's ability to provide much needed improvements, especially to underserved areas. To increase the City's capacity to increase bike and pedestrian connections, it will need a dedicated funding source. See Appendix R for a complete list of bicycle and pedestrian projects and future project recommendations included in the Citywide Transportation Plan and Walk Bike BCD Plan.

#### **PUBLIC TRANSIT**

Public transit services in the Tri-county region are primarily provided by two agencies: the

Charleston Area Regional Transportation Authority (CARTA) and the Berkeley-Charleston-Dorchester Regional Transportation every 10 minutes and 6,800 daily trips. Management Association (RTMA, d.b.a. TriCounty Link). CARTA primarily serves the urban core of the region with fixed route, commuter bus, and paratransit services, while TriCounty Link (TCL) serves the rural areas of the region with deviated fixed route and commuter services. CARTA also operates the HOP (Hospitality On the Peninsula) shuttle, DASH (Downtown Area Shuttle), and a service for 55+ or medically disadvantaged residents called Tel-A-Ride. The future Lowcountry Rapid Transit (LCRT) route will connect from a park and ride stop in Ladson, through North Charleston, to the Medical District and West Edge development in the heart of the

peninsula's major job center. It will provide 20 stations, 19 vehicles to offer pick-ups

There is a continued need for increased and improved transit options throughout the city and region. In addition to the need for increased frequency of bus services and more routes, the City of Charleston should begin advocating for additional rapid transit routes to provide for connections with other areas of the region. Transit-oriented development (TOD) strategies will be important to maximize the opportunities for mass transit to facilitate increased connections between where people live, work and play. Additionally, affordable housing should be prioritized along this and other transit routes to improve mobility options and decrease overall cost of living.

#### **TRANSPORTATION**

This map shows the recommended Lowcountry Rapid Transit route as of May 2021. iv This route may change as project development continues.



#### **WATERWAY TRANSIT**

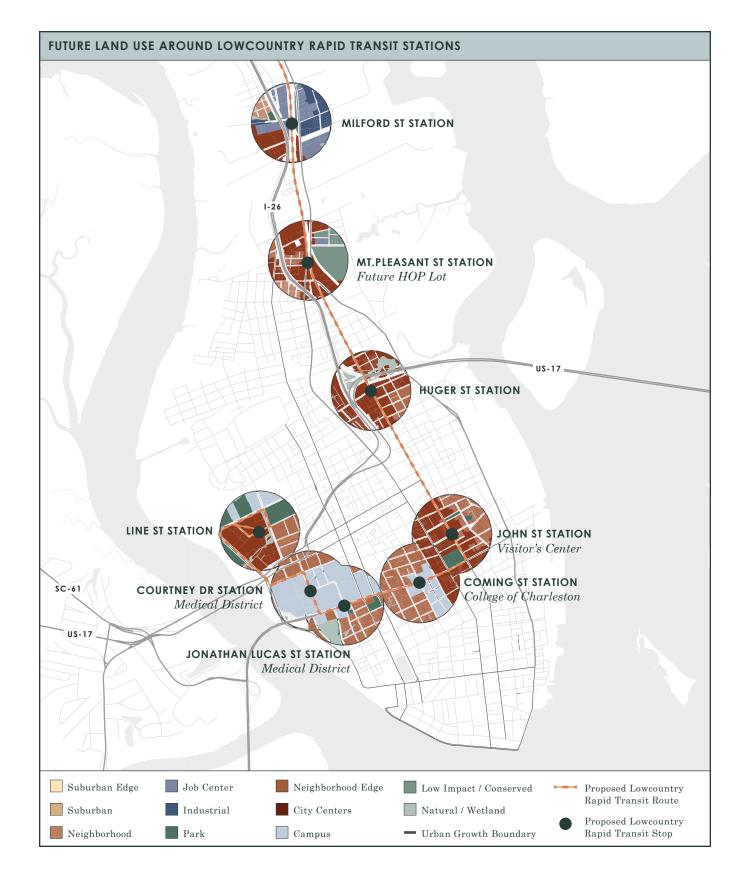
Prior to the construction of highways and bridges in the 20th century, water shuttles and ferries were a common mode of passenger transportation providing access throughout the Charleston region. Today, limited waterway service is provided by two private water taxi/ferry operators which are geared towards the tourist market and provide service primarily around the Charleston Harbor. The 2040 Regional Transit Vision, established in One Region One Plan (OROP), included the establishment of additional ferry and water taxi services as one of five strategies. In early 2017, the City of Charleston created a Commuter Ferry Working Group to identify funding sources for planning, capital, and operating expenses; identify priority sites that are good candidates for establishing service and; advance a feasibility study of commuter ferry service. The group has examined the feasibility of approximately 20 locations, many of which are in close proximity to existing CARTA routes. v In the City Plan community survey, 30% of residents on the Cainhoy Peninsula and 25% of residents in

the Upper Peninsula Neck said they would use a water ferry service weekly to commute to work if it were provided as a public transit option. Residents were also surveyed for potential sites to facilitate ferry service. These responses were aggregated and provided to the Commuter Ferry Working Group members to incorporate into their ongoing analysis.

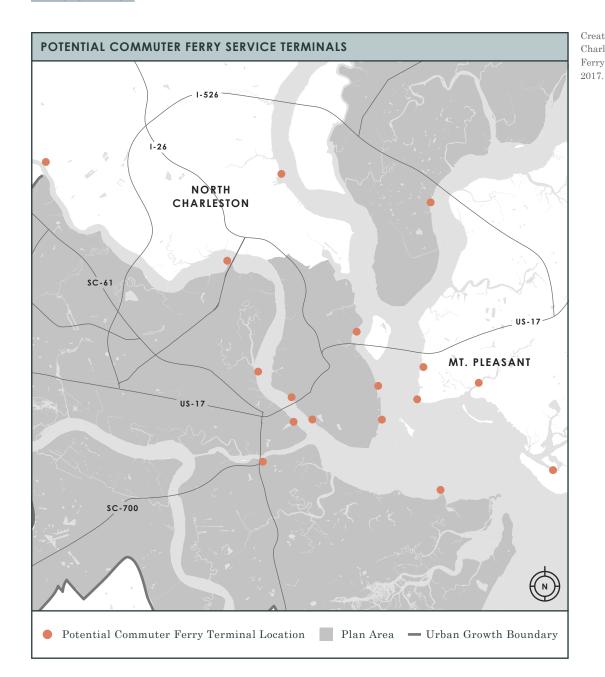
For commuter ferry service to be successful, it would need to offer travel times that are competitive with other modes of travel. Additional analysis is needed to compare travel times between ferry service, bus transit service and driving. Vi The interest and support for waterway transit service is evident and the City should continue efforts, in collaboration with neighboring jurisdictions and regional transportation agencies, to advance commuter ferries as a viable transit option.

# PERSONAL VEHICLE

During the City Plan engagement and outreach, traffic was cited as a top concern for many residents. The majority of residents today, and into the future, will be opting for



#### **TRANSPORTATION**



Created by the City of Charleston Commuter Ferry Working Group in

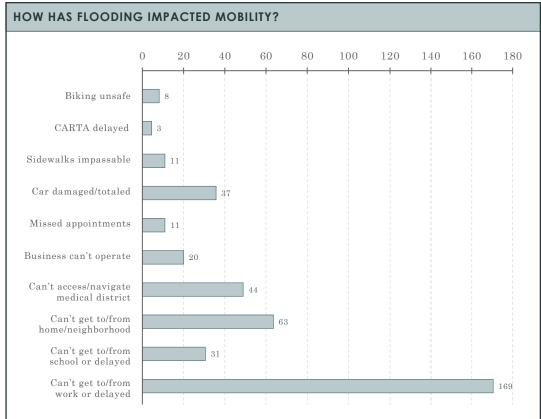
personal vehicles to travel to and from which seeks to widen and improve the work or school, adding more cars to already congested roadways. This creates significant challenges to increase road capacity.

which seeks to widen and improve the existing I-526 route; the Mark Clark (I-526 route) the Extension, which will connect the existing I-526 route as proposed to the James Island

Most of our heavily traveled roadways have improvement projects scheduled to be constructed in the next few years. Current and anticipated roadway projects include the I-526 Lowcountry Corridor,

which seeks to widen and improve the existing I-526 route; the Mark Clark (I-526) Extension, which will connect the existing I-526 route as proposed to the James Island Connector; Highway 17 Capacity study which looks at what will need to occur between I-26 and the Ashley Bridge District interchange; and intersection improvements along Folly Road. See Appendix R for a complete list

Source: City Plan Community Survey, 2020.



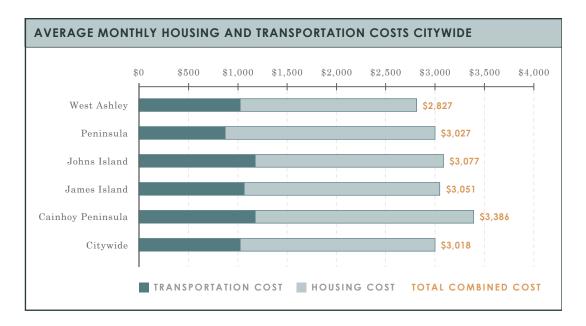
of roadway projects and future project recommendations included in the Citywide Transportation Plan.

Looking forward, the Citywide Transportation Plan lists the following strategies to properly plan for the increased demand on city roadways: increasing capacity, creating complete streets and managing equitable access. As the ability to widen roadways or create new bridges is limited, strategies should continue to focus on the use of new technology to improve traffic flow and providing more and better alternatives to driving.

### TRANSPORTATION AND WATER

Low-lying streets have become increasingly burdensome for homes and neighborhoods that become isolated during flood events. This poses not only an inconvenience but serious concerns for life and safety. In the City Plan survey, respondents shared stories of a wide variety of impacts, from missing work, to businesses not being able to operate, to not being able to leave or get home, to not being able to access the hospital.

Future improvements to Charleston's roadways must include strategies to elevate low-lying streets and increase connectivity during flood events. Additionally, streets can provide an opportunity for improved water management. The Dutch Dialogue Charleston report (2019) emphasized the role that streets can play in managing water, including the use of permeable pavers, adding water storage under streets, planting more street trees and installing bioretention in right-of-ways to intercept, infiltrate, store and drain water.



#### TRANSPORTATION AND HOUSING

in where someone chooses to live, as well as their overall cost of living. When cost of transportation is factored into cost of living, more affordable housing costs can be offset by a more expensive commute. The City Plan housing analysis found that some areas in the city with more affordable housing, like Johns Island, were more expensive than other areas of the city due to higher transportation costs. Additionally, supports the need for a wider range of if transportation costs are included as part of housing costs, over 60% of the city would be considered cost-burdened, which means they are spending more than 30% of the their annual household income on housing (and related transportation) costs.

Transportation can play a significant role In this analysis, transportation costs are calculated based on the average number of cars per household, multiplied by average costs related to car payments, insurance, taxes, DMV fees, gasoline prices and maintenance. Where someone lives determines how they get around, how far they have to go, and how much they pay to get there. This analysis highlights the important connection between housing and transportation and further mobility options, affordable housing in all areas of the city, and for more housing to be located near where people work.

# TRANSPORTATION RECOMMENDATIONS



Continue to implement recommendations from the Citywide Transportation Plan.

Continue to promote complete streets in new or redesigned roadways, providing for safe and alternative means of transportation; especially in areas designated as Neighborhood Edge.

#### 03.

Create a permanent funding stream for construction and maintenance of sidewalks and other pedestrian and cyclist infrastructure citywide.

Connect more schools and job centers to neighborhoods with pedestrian pathways and multi-use pathways, and expand opportunities for bike share systems.

#### 05.

Advocate for additional rapid transit routes along Sam Rittenberg Corridor, Savannah Highway, Glenn McConnell Parkway, Folly Road, and Clements Ferry Road.

#### 06.

Work to improve access and comfort of the CARTA stations in the City of Charleston through connections with neighborhoods and expanding the street furniture and other amenities provided at stops.

#### 07.

Advocate for strategies to improve flow and safety of traffic in heavily congested roadways (such as Highway 61 in West Ashley), including the installation of advanced traffic control devices and other methods that can fit within existing rights-of-way, and that prioritize walkability and preservation of natural and cultural resources.

#### 08.

Work with BCDCOG and neighboring jurisdictions to advance existing plans to provide water taxi/highspeed ferry systems as a public transit option.

Research and promote the creation of additional Park-and-Ride routes, such as the Hospitality On the Peninsula (HOP) Route, to connect all areas with key job centers; especially in places that cannot at present support more extensive mass transit such as Johns Island, James Island and Outer West Ashley.

Right-size parking codes including implementing parking maximums, and explore opportunities to allow developers to pay into a parking in lieu fund.

Expand publicly accessible electric vehicle (EV) charging infrastructure, especially at rideshare, mobility hubs, on-street peninsula access and City parking facilities and explore the creation of requirements for EV charging infrastructure in new development.

#### 12.

Advocate for the completion of I-526 as currently planned with bicycle and pedestrian accommodations and connectivity.

### 13.

Conduct study to understand the specific implications and timeline of the trend toward autonomous vehicles and best practices in transportation planning.

## 14.

Coordinate with Charleston County, Berkeley County and the SC Department of Transportation to retrofit existing and design new public rights-of-ways to increase mobility during flooding events and maximize opportunities to intercept, infiltrate, store and drain water.

# **15.**

Work with CARTA to support increased ridership and consequently improved transit options, including encouraging employer-sponsored transit programs and increased mobility options for seniors and individuals with disabilities.

#### 16.

Promote policies and creative incentives to encourage wider, multi-use paths where new pathways are being considered, or widening when feasible for existing pathways; and promote design guidelines that adhere to best practices in bike and pedestrian safety (i.e. separation from vehicular traffic and dedicated lanes for cyclists and pedestrians when feasible).

i 2018 American Community Survey

ii Citywide Transportation Plan. Report. Traffic and Transportation, City of Charleston, Charleston, SC, 2018.

iii Walk Bike BCD, Executive Summary, Berkeley-Charleston-Dorchester Council of Governments, Accessed June 18, 2021. https://apd.app.box.com/s/kqlkkgwmksvo8vn9tahi1esvzg7pfi4y

iv Lowcountry Rapid Transit Project Maps. Accessed May 2021. https://lowcountryrapidtransit.com/presskit/

v Charleston Area Transportation Study (CHATS) Long Range Transportation Plan Transit Needs Assessment. Revision 3. October, 2017.

vi Ibid.

Community facilities includes core municipal services and major capital improvements including, but not limited to transportation, drainage, water, parks and recreational facilities. Priority Investment informs funding for facilities and infrastructure to meet the city's existing needs and future demands.

> The five-year Capital Improvement Plan (CIP) addresses short and long-term capital needs in all functional areas of City government. Projects include park and recreation improvements; road, bridge, and sidewalk improvements; stormwater drainage projects; construction of new facilities; equipment needs; and the renovation and preservation of historic buildings.

The CIP is developed, maintained, and updated by the Capital Projects Review Committee (CPR). The committee consists of City department heads, Finance and Budget Staff, Project Managers, and is for the City of Charleston. The committee is tasked with setting infrastructure priorities, project budgets, and managing the projects within the guidelines established by the Mayor and City Council.

The CPR Committee is also central to the process of identifying and prioritizing projects and securing funding. During the annual budget process, individual departments within the City conduct and review their own long-range plans. These long-range plans identify facility and capital needs that are then communicated

to the CPR Committee. The Committee then drafts an updated CIP with recommendations for new projects and potential funding sources for those projects. The availability of funds sets the priority of which projects are chaired by the Chief Financial Officer (CFO) able to move forward and are included on the CIP. The CFO, as chair of the committee, then takes the proposed CIP as a recommendation to project requests and evaluation, establishing the Mayor and the Ad Hoc Budget Committee. The Mayor and the Ad Hoc Budget Committee review the CPR Committee's recommendations and adjust the CIP where appropriate.

> The CIP includes new and continuing projects to provide for the below services and may involve the collaboration of multiple departments.

Culture and Recreation. The Culture and Recreation category focuses on projects that create or improve access at park and recreation facilities and cultural sites





#### **KEY TERMS**

Capital Improvements include construction of new City facilities or infrastructure; or updates to existing City facilities or infrastructure.

Community Facilities are facilities and infrastructure that provide for the health and recreational needs of a community's residents.

Infrastructure describes the basic physical structures and systems that support the basic needs of a community, such as transportation systems, communication networks, sewage, water and electric

Priority Investment informs funding for facilities and infrastructure to meet the city's existing needs and future demands.

Stormwater is water that accumulates as a result of rain or other precipitation and Runoff is created when stormwater flows over ground surfaces that do not allow the water to soak into the ground.

Waring Senior Center.

New roof for the Martin Luther King, Jr. Pool.

Images courtesy of Christopher



throughout the city. The Department of Recreation offers a diverse array of programs, sports, and activities. Similarly, the Office of Cultural Affairs (OCA) is committed to promoting and fostering excellence through artistic expressions and to further connect our community through the arts.

Public Service. Public Service projects address water drainage issues, and seawall maintenance. The Department of Public Service – which includes the Building Inspections Division, Engineering Division and Environmental Services Division works with numerous other local and regional agencies to provide building inspections, engineering, road and sidewalk maintenance, garbage and trash collection, and street sweeping. The Department of Stormwater Management oversees improvements to and maintenance of the City's drainage systems as well as other means to protect residents from impacts of flooding.

*Public Safety*. Public Safety projects focus on maintaining and improving the

facilities and equipment needs for the fire and police protection services. The city's fire and police services are provided by the Charleston Fire Department and Charleston Police Department, in coordination with Charleston County, Berkeley County, and area Public Service Districts. The City Fire Department's goal is to maintain a station within a six minute total response time of every customer. Police stations and substations are generally sited for every fifteen to twenty thousand people, with limited exceptions, and are based on an eight-team patrol system that covers each area of the city.

#### Urban and Community Development.

Urban and Community Development projects improve infrastructure and enhance the environment in targeted areas throughout the city, as well as provide affordable housing for citizens. The Department of Housing and Community Development (HCD) provides a range of services that employ a multi-faceted approach for neighborhood revitalization and affordable housing opportunities. The City of Charleston Department of Traffic

Daniel Island Recreation Center, opening in 2021. Image courtesy of Christopher Morgan.



and Transportation (T&T) studies, plans, and implements traffic operations, and transportation services and facilities to maintain the safe and efficient movement of people and goods throughout the city.

### **PRIORITY INVESTMENT**

This Capital Improvement Plan (CIP) is developed separately from the comprehensive plan and therefore the Charleston City Plan will not include recommendations for specific projects. However, future Capital Improvement Plans should respond to the needs and future demands as outlined in the other elements of this plan.

During engagement, community members agreed that future priorities should include: improvements to the regular maintenance of existing drainage infrastructure and ditches; updating and designing new infrastructure to manage flooding and increase transportation connectivity; better utilizing the natural infrastructure to increase resiliency; creating more affordable housing and preventing displacement of long-time residents; and



increasing access to green space, water and conserved land. The community also expressed that they would like to see more investments and improvements directed toward older communities, where they are more likely to have outdated infrastructure and fewer amenities.  $\label{thm:municipal} \begin{tabular}{ll} Municipal Golf Course\\ renovations. \ Image\ courtesy\\ of\ Christopher\ Morgan. \end{tabular}$ 

Ferguson Village Restrooms. *Image courtesy* of Christopher Morgan.

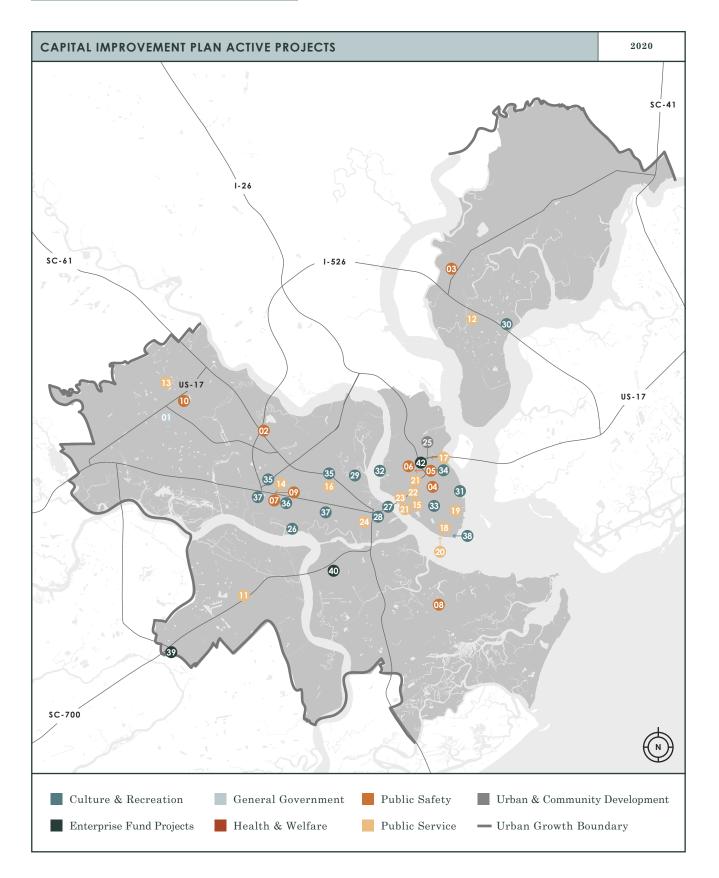
COMPLETED CAPITAL PROJECTS		
PROJECT	TOTAL PROJECT BUDGET	YEAR COMPLETED
50 BROAD ST IMPROVEMENTS	\$800,000.00	2011
75 CALHOUN GREEN ROOF	\$200,462.00	2011
ARTHUR W. CHRISTOPHER COMMUNITY CENTER AT HARMON FIELD	\$7,079,078.00	2011
CFD EMERGENCY SERVICES STATION IMPROVEMENTS	\$250,000.00	2011
CITY MARKET IMPROVEMENTS	\$5,340,000.00	2011
COOPER RIVER AREA REDEVELOPMENT-CONSULTANT SERVICES	\$203,900.00	2011
FOLLY ROAD/MAYBANK HIGHWAY INTERSECTION	\$2,800,000.00	2011
J.P. RILEY JR BALLPARK PITCHING MACHINE STORAGE	\$150,000.00	2011
LOWER KING STREET STREETSCAPE	\$5,278,075.00	2011
MARKET STREET STREETSCAPE	\$5,000,000.00	2011
NOAA GRANT-SHORELINE AND OYSTER HABITAT RESTORATION	\$560,956.00	2011
WEST ASHLEY GREENWAY 3 PIPES BRIDGE REPLACEMENT/EROSION CONTROL	\$120,000.00	2011
AVONDALE POINT IMPROVEMENTS	\$650,000.00	2012
CFD BOAT LIFT & PIER EXTENSION AT CHARLESTON HARBOR PILOTS STATION	\$80,000.00	2012
BROAD ST. STREETSCAPING	\$1,000,000.00	2012
CORRINE JONES PARK	\$90,000.00	2012
GOVERNOR'S PARK-NORTH	\$4,734,594.00	2012
MARION SQUARE STORAGE BUILDING	\$95,000.00	2012
MEDWAY PARK IMPROVEMENTS	\$75,000.00	2012
MITCHELL PARK PLAYGROUND IMPROVEMENTS	\$75,000.00	2012
SHAW COMMUNITY CENTER ROOF REPLACEMENT	\$125,000.00	2012
MAJESTIC SQUARE GARAGE IMPROVEMENTS	\$150,000.00	2012
PARKING FACILITIES STRUCTURAL REPAIRS-VRTC STAIRWELLS	\$300,000.00	2012
CHARLOTTE ST. PARK	\$3,096,911.00	2013
COURTENAY SQUARE GAZEBO	\$450,000.00	2013
CPD LOCKWOOD HVAC SOLAR HOT WATER HEATER	\$300,100.00	2013

COMPLETED CAPITAL PROJECTS (CONT.)			
PROJECT	TOTAL PROJECT BUDGET	YEAR COMPLETED	
DANIEL ISLAND TENNIS CENTER - 3 COURTS ADDITION	\$404,000.00	2013	
EMERGENCY SERVICES STATION 9 CONSTRUCTION	\$7,081,294.00	2013	
HAGOOD AVENUE TIDAL DRAINAGE RE-ESTABLISHMENT	\$75,000.00	2013	
JOSEPH P. RILEY BALLPARK FIELD RENOVATION	\$1,000,000.00	2013	
MAYBANK TENNIS CENTER IMPROVEMENTS	\$877,649.00	2013	
MILFORD ST. BUILDING RENOVATION	\$1,275,292.00	2013	
SPRING-FISHBURNE DRAINAGE BASIN IMPROVEMENTS-PHASE 1	\$10,200,000.00	2013	
VRTC BUS SHELTER INGRESS/EGRESS IMPROVEMENTS	\$80,000.00	2013	
WATERFRONT PARK WATER TAXI PIER	\$481,961.00	2013	
WEST ASHLEY GREENWAY IMPROVEMENTS PHASE I (ALBERMARLE TO STINSON)	\$443,416.00	2013	
BEAUFAIN ST. STREETSCAPE	\$1,174,202.00	2014	
BEST FRIEND MUSEUM BUILDING & EXHIBITRY	\$1,141,500.00	2014	
MARKET STREET - DIVISION II - DRAINAGE TUNNELS & SHAFTS	\$17,965,547.00	2014	
CFD STATIONS GENERATORS	\$193,650.00	2014	
CPD LOCKWOOD PARKING LOT REFURBISHMENT 2013	\$150,000.00	2014	
HARMON BALL FIELD AND PLAYGROUND	\$779,668.00	2014	
HISTORIC PENINSULA PARKS REFURBISHMENT	\$129,034.00	2014	
JACK ADAMS TENNIS CENTER RENOVATION	\$750,000.00	2014	
JAMES ISLAND RECREATIONAL CENTER IMPROVEMENTS	\$250,000.00	2014	
MUNICIPAL GOLF COURSE ENTRANCE IMPROVEMENTS	\$135,665.00	2014	
MUNICIPAL GOLF COURSE NEW IRRIGATION SYSTEM	\$650,909.00	2014	
NORTHBRIDGE PARK	\$1,849,990.00	2014	
SEAWALL REPAIRS PHASE 1 - CONCRETE HIGH BATTERY "TURN"	\$3,217,862.00	2014	
SEAWALL REPAIRS PHASE 2 - STONE MASONRY HIGH BATTERY "TURN"	\$800,000.00	2014	
TIEDEMANN PARK PLAYGROUND RENOVATION	\$55,000.00	2014	
VISITOR CENTER BUILDING REPOINTING	\$138,520.00	2014	

COMPLETED CAPITAL PROJECTS (CONT.)		
PROJECT	TOTAL PROJECT BUDGET	YEAR COMPLETED
WAGNER AVENUE STORM DRAIN IMPROVEMENTS	\$836,013.00	2014
WEST ASHLEY CIRCLE PERMITTING & DESIGN	\$180,000.00	2014
EAST BAY/CALHOUN INTERSECTION IMPROVEMENTS	\$200,000.00	2015
CHARLESTON TENNIS CENTER AT FARMFIELD - RESURFACING 15 HARD COURTS	\$90,000.00	2015
DEMETRE PARK - PIER EXPANSION	\$54,300.00	2015
GADSDENBORO PARK	\$7,200,000.00	2015
MARION SQUARE REFURBISHMENT	\$105,000.00	2015
THEODORA PARK	\$451,605.00	2015
VRTC LANDSCAPE RENOVATION - PHASE 1	\$50,000.00	2015
WEST ASHLEY BIKEWAY - HIGGINS PIER	\$650,000.00	2015
CPD PSOC AND CIOC RENOVATION	\$150,000.00	2015
J.P. RILEY STADIUM CONCRETE DECK COATING, EXPANSION JOINT SEALING	\$95,000.00	2015
GAILLARD MUNICIPAL BUILDING, PERFORMANCE & EXHIBIT HALL	\$144,143,302.00	2015
1906 MEETING UPFIT	\$148,614.14	2016
75 CALHOUN ST. OFFICE BUILDING IMPROVEMENTS	\$1,069,252.06	2016
ASHLEY RIVERWALK PERMITTING AND SURVEYING	\$102,131.69	2016
COLONIAL LAKE RENOVATION	\$5,591,283.86	2016
NORTHBRIDGE PARK	\$1,783,766.42	2016
J.P. RILEY STADIUM STEEL PAINTING	\$190,551.13	2016
J.P.RILEY BALL PARK BACK STAIRWELL REPLACEMENT	\$217,507.59	2016
MUNICIPAL GOLF COURSE HVAC REPLACEMENT & CLUB HOUSE RENOVATION	\$348,447.31	2016
GRACE BRIDGE ST. PARKING LOT	\$932,705.00	2016
WRAGG SQUARE PEDESTRIAN IMPROVEMENTS	\$120,383.33	2016
MARITIME CENTER WAVE ATTENUATOR REFURBISHMENT	\$200,122.00	2016
MEETING STREET LIGHTING IMPROVEMENTS (FROM CUMBERLAND TO BROAD ST.)	\$329,610.00	2017
CPD TEAM 4 OFFICE BUILDING (MARY ADER ROAD)	\$2,323,255.00	2017

COMPLETED CAPITAL PROJECTS (CONT.)			
PROJECT	TOTAL PROJECT BUDGET	YEAR COMPLETE	
BAYVIEW SOCCER COMPLEX - BALL FIELD LIGHTS	\$505,000.00	2017	
DANIEL ISLAND WATERFRONT TRAIL RESTORATION	\$553,059.00	2017	
FREEDOM PARK SHELTER/RESTROOM	\$369,995.00	2017	
LENEVAR PARK PLAYGROUND REPLACEMENT	\$93,556.00	2017	
GOVERNOR'S PARK BALL FIELD LIGHTING	\$613,694.00	2017	
JPR BALLPARK ELEVATOR MODERIZATION	\$73,020.00	2017	
WHITE CHAPEL CIRCLE DRAINAGE REPAIRS	\$932,040.00	2017	
43 SUMAR ST. (ACQUISITION & DEMOLITION)	\$3,211,453.43	2018	
CFD CAROLINA BAY EMERGENCY SERVICES STATION 14	\$4,372,059.05	2018	
ASHLEY HALL MANOR DRAINAGE IMPROVEMENTS	\$228,374.95	2018	
SPRING-CANNON STREETSCAPE & TWO-WAY CONVERSION	\$4,277,251.00	2018	
JOE RILEY WATERFRONT PARK	\$273,729.34	2018 2018	
WEST ASHLEY GATEWAY COMING TO PENINSULA	\$207,985.04		
WEST ASHLEY GATEWAY IMPROVEMENTS (PARKDALE TO CROGHAN LANDING)	\$626,922.23	2018	
SPRING/FISHBURNE PHASE 2	\$31,590,456.00	2019	
WESTWOOD DRAINAGE IMPROVEMENTS	\$677,415.00	2019	
CANNON ST. EMERGENCY SERVICES STATION 6-PHASE 1	\$263,642.52	2019	
CFD GENERATORS (2016)	\$490,262.35	2019	
FERGUSON VILLAGE RESTROOMS	\$321,649.22	2019	
JAMES ISLAND RECREATION CENTER IMPROVEMENTS	\$283,215.27	2019	
CITY MARKET SHED BRICK REPOINTING	\$229,384.82	2019	
JPR BALLPARK 2018 FIELD IMPROVEMENTS	\$1,114,522.85	2019	
WARING SENIOR CENTER	\$9,240,098.95	2019	
DANIEL ISLAND PARK #4	IEL ISLAND PARK #4 \$559,772.15		
TOTAL EXPENDITURES	\$318,975,642.70		

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CAPITAL IMPROVEMENT PLAN		2020-2025
PROJECT	TOTAL PROJECT BUDGET	ACTIVE PROJECTS MAP KEY
GENERAL GOVERNMENT		
WEST ASHLEY CIRCLE / GRAND OAK CONNECTOR ROAD - DESIGN & PERMITTING	\$100,000	01
TOTAL GENERAL GOVERNMENT BUDGET	\$100,000	
PUBLIC SAFETY		
CFD ASHLEY HALL FIRE STATION RENOVATION (FS 16)	\$430,000	02
CFD CAINHOY FIRE STATION (FS20)	\$5,456,500	03
CFD CANNON STREET FIRE STATION RENOVATION (FS 6)	\$5,554,229	04
CFD HUGER STREET RENOVATION (FS 8) - PHASE 1	\$395,469	05
CFD HUGER STREET RENOVATION (FS 8) - PHASE 2	\$4,051,001	06
CFD SAVANNAH HWY FIRE STATION (FS 11)	\$9,505,131	07
JAMES ISLAND RECREATION CENTER SAFE HARBOR BACK-UP GENERATOR	\$113,589	08
CPD FLEET OPERATIONS / VEHICLE MAINTENANCE GARAGE RELOCATION	\$3,402,741	09
CPD FORENSIC LAB	\$12,392,186	10
TOTAL PUBLIC SAFETY BUDGET	\$41,300,846	
PUBLIC SERVICE	•	
BARBERRY WOODS	\$7,151,198	11
BERESFORD CREEK BRIDGE REPLACEMENT	\$1,700,000	12
CHURCH CREEK NEWF RENATURALIZATION, HABITAT RESTORATION & FLOOD PROTECTION	\$3,950,000	13
DUPONT / WAPPOO DRAINAGE IMPROVEMENT PROJECTS 1-4 DESIGN	\$360,949	14
EHRHARDT STREET TUNNEL DESIGN	\$852,904	15
FOREST ACRES DRAINAGE IMPROVEMENTS	\$18,519,929	16
HUGER STREET DRAINAGE IMPROVEMENTS	\$12,078,670	17
LIMEHOUSE BRICK ARCH DRAINAGE PROJECT	\$1,875,192	18
MARKET STREET DIVISION III-SURFACE COLLECTION & CONVEYANCE	\$17,545,684	19

CAPITAL IMPROVEMENT PLAN (CONT.)		
PROJECT	TOTAL PROJECT BUDGET	ACTIVE PROJECTS MAP KEY
PUBLIC SERVICE (CONT.)		
SEAWALL REPAIRS PHASE 3 - LOW BATTERY SEAWALL / MURRAY BOULEVARD	\$71,201,032	20
SPRING-FISHBURNE DRAINAGE BASIN IMPROVEMENTS PHASE 3 - DRAIN TUNNELS & SHAFTS	\$42,276,716	21
SPRING-FISHBURNE DRAINAGE BASIN IMPROVEMENTS PHASE 4 - WETWELL & OUTFALL	\$65,319,073	22
SPRING-FISHBURNE DRAINAGE BASIN IMPROVEMENTS PHASE 5 - PUMP STATION	\$37,000,000	23
WINDERMERE DRAINAGE PROJECT	\$4,600,000	24
TOTAL PUBLIC SERVICE BUDGET	\$284,431,347	
URBAN AND COMMUNITY DEVELOPMENT		
BRIGADE STREET BIKEWAY	\$300,000	
COOPER RIVER BRIDGE DISTRICT SIDEWALKS (CEDAR, CONROY, AND STUART)	\$150,000	
HUGER ST. STREETSCAPE	\$2,562,076	25
MARKET STREET STREETSCAPE	\$9,352,500	
SANDERS ROAD SIDEWALKS	\$564,496	
TOTAL URBAN AND COMMUNITY DEVELOPMENT BUDGET	\$12,929,072	
CULTURE AND RECREATION		
WPAL PARK (1717 WAPPOO)	\$2,481,559	26
ASHLEY RIVER BIKE-PEDESTRIAN BRIDGE (BUILD GRANT)	\$22,749,750	27
ASHLEY RIVERWALK - PHASE I (DESIGN AND ENGINEERING)	\$300,000	28
CARR-RICHARDSON PARK	\$2,795,025	29
DANIEL ISLAND RECREATION CENTER	\$10,813,844	30
INTERNATIONAL AFRICAN AMERICAN MUSEUM	\$93,600,000	31

CAPITAL IMPROVEMENT PLAN (CONT.)		2020-2025
PROJECT	TOTAL PROJECT BUDGET	ACTIVE PROJECTS MAP KEY
CULTURE AND RECREATION (CONT.)		
LONGBOROUGH DOCK	\$827,000	32
COOPER RIVER BRIDGE MULTI-USE TRAIL	\$750,000	
SHILOH PARK	\$500,000	33
ST. JULIAN DEVINE IMPROVEMENTS	\$3,146,883	34
ST. THOMAS ISLAND DRIVE - BERESFORD CREEK CROSSING	\$751,468	
STONEY FIELD IMPROVEMENTS	\$3,018,481	
WEST ASHLEY BIKEWAY RESURFACING (PLAYGROUND TO WAPPOO)	\$1,400,000	35
WEST ASHLEY GREENWAY - WEST ASHLEY BIKEWAY CONNECTOR	\$679,145	36
WEST ASHLEY GREENWAY IMPROVEMENTS (STINSON TO PARKDALE & FOOT BRIDGE REPLACEMENT)	\$549,017	37
WHITE POINT GARDENS IMPROVEMENTS		
TOTAL CULTURE AND RECREATION BUDGET	\$144,537,172	
ENTERPRISE FUND PROJECTS		
ANGEL OAK SITE / PARKING IMPROVEMENTS	\$502,730	39
CITY MARKET SHED OVERHEAD GAS LINE	\$711,515	
MUNICIPAL GOLF COURSE RENOVATION	\$2,560,508	40
PARKING GARAGE REPAIRS PROJECT	\$4,451,300	41
TROLLEY BARN PARKING LOT	\$935,000	42
TOTAL ENTERPRISE FUND PROJECTS BUDGET	\$9,161,053	
TOTAL 2021-2025 CAPITAL IMPROVEMENT PLAN	\$492,459,490	

In order to accommodate recent and future growth, meet the city's toughest challenges relating to flooding and sea level rise, housing System (CWS) in most areas of the city. and mobility, and ensure quality of life for all of Charleston's residents, the City should prioritize funding for projects that, North Charleston Sewer District provides in no certain order:

- Advance racial and economic equity.
- *Increase* resiliency against flooding, sea level rise and climate change
- *Increase* the amount of permanent affordable and attainable housing for all income levels
- Prevent displacement of vulnerable communities
- Improve mobility for all modes of travel, especially pedestrians, cyclists and transit-riders
- *Increase and enhance* parks and recreation facilities, especially in underserved areas
- Preserve and restore what makes Charleston unique: its natural and cultural resources

Funding Sources. Capital improvement projects are funded through a variety of sources including but not limited to taxes and fees, private and public grants, and municipal bonds. See Appendix F for complete list of capital improvement projects funding sources.

# **ADDITIONAL SERVICES**

The City of Charleston actively coordinates with area agencies and institutions to provide the below additional services.

Water and Sewer. Water and sewer service is provided by the Charleston Water St. Johns Public Service District provides water service for Johns Island, and the sewer service for the Upper Peninsula and Laurel Island.

Emergency Medical Services. Charleston County provides emergency medical services (EMS) to the City of Charleston. Disaster and emergency preparations are coordinated by the City of Charleston in conjunction with other local, regional, state and national governments and agencies.

Educational Facilities. Charleston County and Berkeley County School Districts operate area public schools. The City is also served by a large number of private schools located throughout the region. Higher education institutions serving the Charleston region include the College of Charleston, the Citadel, the American College of the Building Arts, Charleston Southern University, Charleston School of Law, the Medical University of South Carolina, Roper Hospital School of Practical Nursing, Trident Technical College, branches of Webster University, and the Low-country Graduate Center.

Libraries. The Charleston County Library system provides library facilities and programming to City of Charleston residents, operating 18 locations throughout the Charleston region and a wide array of digital services.

# **COMMUNITY FACILITIES & PRIORITY INVESTMENT RECOMMENDATIONS**



#### 01.

Establish adequate public facility standards with consistent service standards throughout the city.

## 02.

Continue to support annexation of areas within the Urban Growth Boundary that are already mostly surrounded by City jurisdiction.

## 03.

Research and evaluate other City services that may need additional funding due to growth and analyze existing City revenue streams for available funds for these services.

#### 04.

Prioritize stormwater and flooding solutions for Special Protection Areas (SPAs), older communities, and existing neighborhoods in Tidal Flood Risk zones.

Assign priority to areas in greatest need of improved infrastructure and amenities, in tangent with anti-displacement protections.

Continue to improve collaboration with other jurisdictions in all key planning activities and major infrastructure projects.

#### 07.

Increase coordination with local school districts in regards to plans for future facilities and improvements.

### 08.

Grow the City's capacity to improve maintenance of existing drainage infrastructure.

# HOUSING

Housing analyzes existing housing stock and projection of housing needs to accommodate existing and future population as identified in the population and economic elements. It also analyzes local regulations to determine the extent they may hinder development of affordable housing, and explores opportunities to incentivize the creation of more affordable housing.

> Over the past ten years, population in the Charleston region and within the City of Charleston increased by 20% and 13%, respectively. This influx of new residents has increased the demand for housing around the region, which has subsequently driven an increase in new residential construction and renovation of existing housing units. Over the previous five years, the City of Charleston experienced a high housing growth rate (new units as a percentage of existing housing stock) of just under 2%, on par with other rapidly growing mid-sized cities such as Raleigh, NC and Minneapolis, MN.

> Despite a steadily growing housing supply, over the last decade in the City of Charleston, median rent and home sales prices increased by 51% and 54% respectively, while household income only increased by 31%. The Charleston region is the 28th most expensive place to buy a home in the entire country, according to a 2021 Urban Land Institute report.

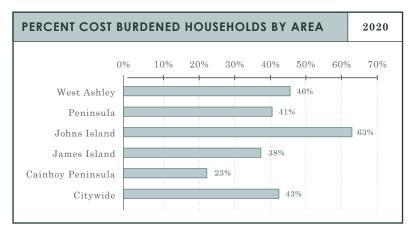
> In survey results, listening sessions and community-led meetings, the message was clear: it is expensive to live in Charleston and rising housing costs are increasing housing insecurity citywide. Forty-one percent (41%) of City Plan survey respondents said they are somewhat or very concerned about being become housing cost-burdened (paying over able to stay in their current housing. This percentage was more than 10 points higher

among Black/African-American and Upper Peninsula respondents; and more than 20 points higher among lower-income respondents, youth and tenants.

As wages have lagged behind housing cost increases, more community members have 30% of income on housing). Today, 42% of Charleston households are housing



Source: SOCDS Building Permits Database. U.S. Census Bureau Building Permit Survey.



Source: Community Data Platforms. Charleston City Plan Housing Analysis.

#### **KEY TERMS**

Affordability Gap refers to the total deficit of housing stock that is affordable to households earning within a specific income range.

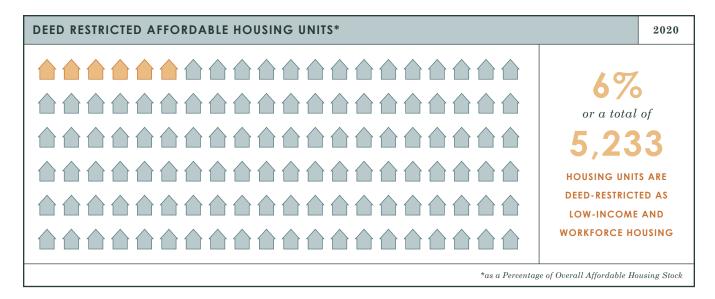
Affordable Housing is used in a variety of contexts with various definitions. Affordability is a relative term dependent on income. For the purposes of this analysis, the blanket term "affordable housing" refers to all housing affordable (priced at or under 30% pre-tax household income) to households making from 0% to 120% of the Area Median Income. This includes housing across the spectrum of affordability, from low-income to workforce housing.

Area Median Income (AMI) is a number determined by the U.S. Department of Housing and Urban Development (HUD) that represents the median household income for a specific region The City Plan will use the AMI for the Greater Charleston Region because HUD does not provide an AMI for the City of Charleston itself. That figure is \$81,000 per year for a family of four.

Climate Gentrification is a relatively new term that has emerged climate change has begun to have impacts on the real estate market. It describes the process of wealthier, often whiter populations moving to areas less exposed to the effects of climate change that were previously occupied by lower-income residents and communities of color, thus exacerbating displacement and disparities.

Cost-burdened Households are households that spend more than 30% of their annual gross income on housing costs.

Deed-restricted in this context means that the housing costs are subsidized through federal, state, and/or local (private or public) funding sources and residents must meet income eligibility requirements to purchase or rent.



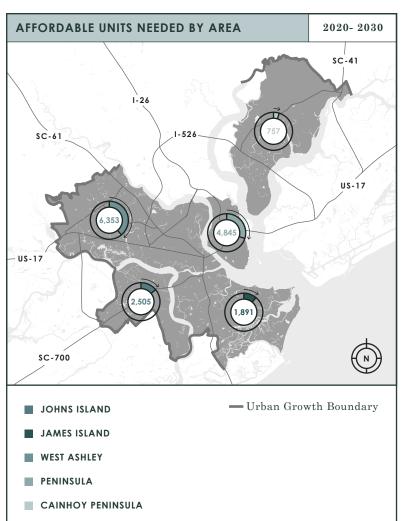
cost-burdened. The gap in housing costs and household income is worse for Black households, whose median income in the City of Charleston is less than half of that of White households - and that income gap grew wider over the past decade.iv Neighborhoods with a majority of Black residents are more than twice as likely to be cost-burdened as those with a majority of White residents. v For the purposes of this analysis, a cost-burdened neighborhood no more than 30% of a household's annual is classified as one where more than 50% of the households are cost-burdened. Rising housing costs and widening income gaps can income as a percentage of the Area Median lead to displacement of long-time residents, especially Black households, further contributing to the gentrification of the city.

The 2020 Housing for a Fair Charleston Report and 2020 Housing and Community Development Consolidated Plan outlines an affordable housing framework plan in Charleston, complete with policy and programming tools to address the affordable housing crisis. The City Plan Housing element builds on the research presented in these documents and provides additional recommendations based on findings from

the City Plan housing analysis and community Housing Labs.

### HOUSING FOR ALL INCOMES

The term "affordable housing" is used in a variety of contexts with various definitions. Affordability is a relative term dependent on income. The US Department of Housing and Urban Development (HUD) defines affordable housing as housing that costs income. Different tiers of affordability are calculated annually based on household Income (AMI), and by household size. See "Affordable Housing Costs/Month\*" chart for an example of this calculation applied to a household of four. These calculations are used by HUD, the City of Charleston Department of Housing and Community Development (HCD), the Charleston Housing Authority, and other non-profit and private affordable housing developers to determine income limits for different types of affordable housing, as well as the fair market rents or mortgage payments associated with each development.



PERCENT AREA MEDIAN INCOME (AMI)	ANNUAL INCOME	MONTHLY HOUSING COSTS (rent/mortgage) at 30% of annual income
30% AMI	\$24,300	\$607.50
60% AMI	\$48,600	\$1,215.00
80% AMI	\$64,800	\$1,620.00
100% AMI	\$81,000	\$2,025.00
120% AMI	\$97,200	\$2,430.00

## **KEY TERMS (CONT.)**

**Displacement** is when long-term residents are no longer able to stay in their communities because of rising housing costs, disasters and/or other factors.

Gentrification was defined as "the loss of neighborhood diversity through the displacement and exclusion of schools, churches, affordable housing and traditional neighborhood-based businesses" in the 2001 City of Charleston Gentrification Task Force Report to City Council. ii The Avery Institute defines gentrification as "the process of dismantling existing urban neighborhoods and displacing poor people of color to make way for new residents who are mostly white and wealthier." iii

**Household** is defined as all of the people who occupy the same housing unit. This includes families with children, married and unmarried couples, roommates living together, or individuals living alone.

Household income is the combined gross cash income of all members of a household, defined as a group of people living together, who are 15 years or older.

Housing Insecurity is defined by the US Department of Housing and Urban Development (HUD) as an umbrella term that encompasses several dimensions of housing problems people may experience, including affordability, safety, quality, insecurity, and loss of housing.

**Housing unit** is a house, apartment, group of rooms, or a single room intended for occupancy as separate living quarters.

Median Household Income is the household income for the median-or middle- household in a region. If you were to line up each household in the area in order from lowest to highest income, the amount of money that household earns would be the median household income. Income can include non-wage sources.

"Missing Middle" Housing refers to the various housing options between the two extremes of single-family (detached) housing and mid-rise apartments, including housing such as duplexes, triplexes, condominiums and townhomes - how Americans used to build and live before the automobile and other financing structures favored constant construction and suburban sprawl.

Naturally Occurring Affordable Housing (NOAH) refers to housing that is affordable without a subsidy to households earning up to 120% of the AMI.

For the purposes of this analysis, the blanket term "affordable housing" refers to all housing affordable (priced at or under 30% pre-tax household income) to households making from 0% to 120% of the Area Median Income (AMI). For consistency, this analysis will refer to different levels of affordability for a family of four.

Of the 76,219 housing units that are currently affordable to households earning up to the 120% AMI range in the City of Charleston, only 6%, or a total of 5,233 of those units are deed-restricted as lowincome, affordable or workforce housing; meaning the housing costs are subsidized through federal, state, and/or local (private or public) funding sources and residents must meet income eligibility requirements to purchase or rent.

Thirty-seven percent (1,969 units) of all deed restricted affordable housing created in the

City of Charleston has been built or preserved in the last 20 years, and 19% in the last 10 years. Of these new or preserved units:

11% were homeownership and 89% were rental,

8% were for households making between 80-150% of the Area Median Income:

21% were for those making 30%-60% of the Area Median Income: and

51% were for those making up to 30% of the Area Median Income.

The affordability of 148 units expired between 2000-2020 and 579 more units are scheduled to expire by 2030 (without additional funding or intervention). At least 26% of all affordable units built during any time period were partially or fully funded by the City.

The vast majority of affordable housing in the city is not deed-restricted and is known as naturally occurring affordable housing (NOAH). As property values rise and units are sold or renovated, NOAH units can vanish because there are no restrictions that ensure these units remain affordable.

In the last 20 years, combined public and private efforts to provide more affordable housing have generated or preserved on average 94 units each year.

This number would need to increase substantially to meet the existing and future need. Based on current population projections, by 2030 there would need to be over 16,000 affordable units (at varying levels 20% were for those making 60%-80% of the Area of affordability) to eliminate affordability

gaps, vi with the greatest need for lowincome housing, or housing affordable to households making 30% or less of the AMI. Based on the incomes of our current population, we need more than 7,000 housing units priced to be affordable for households making 30% AMI and below just to meet the existing need. The term "affordability gap" refers to the total deficit of housing stock that is affordable to households earning within a specific income range, based on HUD's calculation.

It is important to note that these projections assume that wages and housing costs increase proportionately over the coming decade. If wages increase faster than housing costs, or vice-versa, the projected need could change.

Measuring the affordability gap by comparing housing stock with household incomes is only one way to quantify the affordable housing need across the city. During engagement, community members cited numerous other costs that can burden households – such as insurance, utilities, healthcare and long-term maintenance. For example, historic preservation and other restrictive zoning regulations can add additional expense to already cost-burdened homes, especially for fixed-income households.

#### HOUSING POLICIES AND PROGRAMS

A variety of organizations actively work in our region to build and preserve affordable housing units. Many nonprofit organizations and private developers in the community work to create and maintain affordable housing through a variety of tools. In the public sector, three main governmental entities work to support affordable housing development within the City of Charleston:

#### CHARLESTON HOUSING AUTHORITY (CHA)

Administers the local public housing and voucher-assisted housing programs funded by the Department of Housing and Urban Development (HUD), to provide housing for low- and very low-income families and individuals.

# CITY OF CHARLESTON DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT (HCD)

HCD is responsible for creating, facilitating, and implementing activities and programs which stimulate community and economic development, expanding the supply of available housing, and stimulating the construction and rehabilitation of housing for persons of very low, low, and moderate incomes in Charleston's neighborhoods.

# CITY OF CHARLESTON DEPARTMENT OF PLANNING, PRESERVATION, AND SUSTAINABILITY (PPS)

Whereas CHA and HCD actively work to create and maintain affordable housing units, PPS works to leverage planning tools that can facilitate the creation of affordable housing. These tools may include allowing for a greater variety of housing types through zoning, creating incentives for developers to include affordable housing in new projects, assessing fees to new developments that can be used to fund affordable housing, and minimize regulatory burden.



Missing middle housing.

Image courtesy Opticos Design.

Additionally, there is substantial anecdotal evidence that HUD calculations can often miss the mark in terms of calculating what is truly affordable for a household. More research should be done, including qualitative surveys, to understand housing needs and more accurately define affordability.

### **BEYOND AFFORDABILITY**

Understanding the affordability of existing housing stock is necessary to addressing Charleston's housing challenge, but it does not account for nuances that factor into individual housing choices including, but not limited to:

Availability: Is the unit currently open for someone looking for housing?

Size and number of bedrooms: Is the unit the right size for a household's lifestyle?

Location: Is the housing unit in close proximity to friends and family, work, school, grocery stores, and other amenities that a household may need?

*Inheritance:* Was the unit or land inherited from a family member?

Each of these factors vary by family and can further constrain the choices of housing units available to someone looking for a place to live. When these lifestyle and availability factors are combined with cost considerations, many households are forced to reach above the 30% affordability threshold to meet their needs.

Sea level rise also poses risks to the city's







housing stock as the amount of land suitable for development is reduced over time. According to the City's All Hazards Vulnerability and Risk Assessment, 6% of parcels currently zoned for residential development in the city will be vulnerable to tidal flooding with 3 feet of sea level rise. VII The City Plan Land and Water Analysis also highlighted the areas where future marsh will need room to migrate, further limiting the amount of developable land for housing and increasing the potential for climate gentrification.

#### DIVERSITY OF HOUSING TYPES

Approximately 84,000 households live within the Urban Growth Boundary (UGB) which includes about 16,000 households and housing units located outside of the

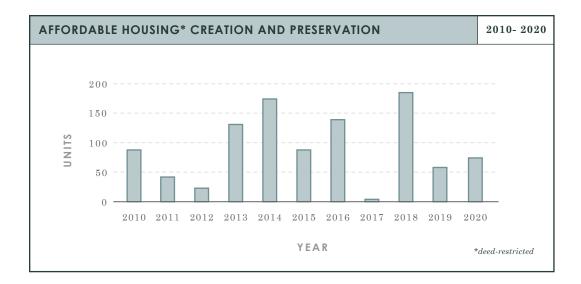
City of Charleston's boundaries in unincorporated Charleston and Berkeley Counties and the Town of James Island. The Planning Division estimates an increase in population of about 13,000 households within the UGB by 2030 based on currently entitled housing developments and population growth trends.

About 94,000 housing units exist within the same area, representing a housing vacancy rate (households divided by housing units) of 9.6%, in line with the U.S. average vacancy rate of 8.6% and about half of the Charleston County rate of 18%. The surplus of units to households stems from several factors, including vacant apartment units, vacation rental units, second homes, uninhabitable units, and units under construction.

Duplex in Atlanta, Georgia.

Image courtesy Market Nsight.

Fourplex in Wagener Terrace. Duplex in Windermere. Images courtesy City of Charleston



Of the 94,000 housing units within the plan area, approximately 64,000 (68%) are for different stages of life in the same single-family (1 unit per lot) housing units, and 29,000 (32%) are multifamily (multiple units per lot) units. Single family housing units are the most common housing type in all areas of the city other than the Charleston Peninsula and the majority of residential zoning in the city is exclusively single-family.

When people think about housing options other than single-family, they typically think of mid-rise apartments. "Missing middle" represents the various housing options between those two extremes such as duplexes and triplexes; how Americans used to build and live before the automobile and other financing structures favored constant construction and suburban sprawl

The diversity of housing types historically encouraged in all neighborhoods helped to increase the amount of more affordable housing options in desirable areas and

also provided right-sized housing units neighborhood. For example, a young person entering the workforce could rent a smaller unit in a fourplex, a family with children could buy a single family home, and emptynesters could downsize into a duplex all on the same street. Many historic Charleston neighborhoods such as Wagener Terrace, Eastside, and Windermere feature examples of "missing middle" housing.

According to the National Association of Homebuilders (NAHB), entry level homebuyers and retirees are driving real estate demand nationwide. According to a 2021 NAHB/ Wells Fargo Housing Market Index survey, first time buyers account for over 40% of all home sales. The types of homes these buyers favor vary by city, but a nationwide trend toward smaller homes, condos and townhomes has surfaced over the past few years. These smaller housing units can provide a bridge for entry-level buyers between rental and homeownership and

WHY DOES HOUSING AFFORDABILITY MATTER?			
DISPLACEMENT	HOMELESSNESS	INCREASED TRAFFIC	ECONOMIC HEALTH
Rising costs make it unaffordable for people to stay in their long time neighborhoods.	Paying too much for housing (in addition to other barriers to housing) leaves people vulnerable to evictions and homelessness.	High housing prices drive people further from jobs and amenities. More cars on the road and longer commutes mean more traffic for everyone.	Businesses struggle with finding employees when there are no affordable housing options nearby.

also allow retirees living on fixed incomes a way to cut costs and downsize.ix

Restrictions on zoning and development standards from the 1950s to today have made these types of developments more difficult, and often illegal, to build. Today, cities around the country are returning to the "missing middle" to address affordable housing challenges and improve quality of life for residents at all stages of life. Some strategies include allowing duplexes, triplexes, and fourplexes by right in more base zoning districts and rethinking development standards such as building setbacks and lot coverage percentages.

In 2020, Charleston City Council approved an ordinance allowing for accessory dwelling units (smaller housing units that can be built on the same lot as an existing home) in all base zoning districts. In the future, changes to zoning should encourage "missing middle" housing types in more base zoning districts and City staff should research ways

to further promote diverse housing types and support affordability around the city.

## MANAGING GROWTH

During engagement activities, many people expressed a love for the diversity of their communities and concerns about the loss of that diversity as housing becomes increasingly unattainable for most. There was a resounding call for there to be a mixture of housing that meets the needs of all income levels, life stages and household size; and for more housing to be located close to where people work. On the same token, many of the same community members expressed deep concerns over additional growth and a desire to slow or stop new development – especially given the pressures of flooding, sea level rise, and traffic. Though these concerns are wholly reasonable and warranted, "shutting the door" on additional growth would have detrimental impacts on an already dire affordability crisis in multiple ways.

#### IMPACTS OF A 'NO-GROWTH' APPROACH

#### HOUSING AFFORDABILITY

In addition to halting the creation of new affordable housing, a restriction of overall supply would further drive home and land values upwards.

#### LOCAL BUSINESSES & JOB GROWTH

Local job creation and economic growth would be hindered, especially for businesses already struggling to find employees due to lack of affordable housing stock.

#### QUALITY AND RELIABLE PUBLIC TRANSIT

Public transit systems rely heavily on ridership. Lack of density along transit corridors can threaten the viability of existing and future transit.

\*A no-growth approach would also present substantial implications for the current rights of private property owners citywide.

weigh all of these factors in balance. To create a more resilient and equitable city, growth must be managed in a way that increases affordability, supports a healthy

Future planning decisions and actions must local economy, improves transportation options, preserves the natural and cultural resources that make our city unique, and protects all of its community members from flooding and natural disasters.

# HOUSING RECOMMENDATIONS



Continue to fully implement recommendations from the Housing for a Fair Charleston Report.

Strongly encourage and create incentives for a diversity of housing types within neighborhoods citywide, including attached-style housing, such as townhomes, condominiums, flats, duplexes, triplexes and fourplexes and allow by right in more base zoning districts.

Any future increases to maximum residential densities within the zoning code should be conditional on the basis that a certain percentage of new units be reserved for affordable housing.

#### 04.

Strongly encourage development of housing in compatible mixed-use and mixed-income (market rate and subsidized units mixed together within the same development) neighborhoods and in close proximity to parks, bicycle and pedestrian facilities, public transit, schools, grocery stores, job centers and civic uses. Incentivize transit-oriented development and affordable housing development along the future Low Country Rapid Transit route and other key public transit corridors.

Expand incentives for affordable housing developments in more base zoning districts, including unit density bonuses, reduced setbacks and lot sizes, and reduced or eliminated parking minimums when located in proximity to public transit. Incorporate a tiered incentive structure for affordable housing projects based on type and level of affordability provided and geographic location, prioritizing City-funded projects.

Adopt policies to increase housing security for existing residents in areas at risk of displacement; including policies tailored to preserving historic African American settlement communities.

Develop strategies for preserving existing affordable housing set to expire and naturally occurring affordable housing (NOAH) units, throughout the city.

Expand partnership with the Charleston Redevelopment Corporation (Palmetto Community Land Trust) and establish a land bank for future affordable housing development.

Implement policies and allocate resources to reduce regulatory barriers that hinder development of affordable housing and disproportionately burden lower-income and vulnerable communities, including: expedited review and permitting, reduced fees, affordable materials standards, flexibility for design and architectural standards when appropriate, and allocating staff devoted to shepherding projects through the development process.

#### 10.

Allocate dedicated resources and staff to assist lowerincome homeowners and African-American owners of historic homes to retain, reinvest, and redevelop their properties to increase the amount of Naturally Occurring Affordable Housing stock.

### 11.

Create a dedicated funding stream for affordable housing development through zoning and other planning tools.

#### 12.

Pursue strategies (incentives, policies and educational programs) to encourage landlord participation in rental assistance and other community housing programs; and establish a rental registration program.

Continue to leverage funding opportunities for affordable housing at the state and federal level and advocate for legislation that can be used to fund or incentivize affordable housing.

Create incentives and policies to increase available housing stock, especially affordable housing stock, through reuse and rehabilitation of existing buildings.

Continue to support creation of senior and affordable senior housing in all areas of the city.

## **16.**

Continue to preserve and defend existing housing stock through enforcement of the Short-Term Rental Ordinance.

i 2010-2019 American Community Survey, U.S. Census Bureau

ii Charleston Trident Association of Realtors 2010, 2018 Annual Reports https://www.charlestonrealtors. com/annual-report/

iii 2021 Home Attainability Index." ULI Americas. March 15, 2021. Accessed May 13, 2021. https://americas.uli.org/2021-home-attainability/.

iv 2019 American Community Survey, U.S. Census Bureau

v Charleston Data Tool, Community Data Platforms, Data vintage: June 2020

vii United States. City of Charleston, SC. Mayor's Office of Resilience and Sustainability. All Hazards Vulnerability and Risk Assessment. November 2020. Accessed May 2021. https://www.charleston-sc.gov/ DocumentCenter/View/27994/All-Hazards-Vulnerability-Assessment-Full-Report.

viii Emrath, Paul. "First-time Buyers Comprise 43 Percent of New Home Market: Eye On Housing." Eye On Housing | National Association of Home Builders Discusses Economics and Housing Policy. March 09, 2021. Accessed May 13, 2021. https://eyeonhousing.org/2021/03/first-time-buyers-comprise-43-percent-ofnew-home-market/#:~:text=Between 2018 and 2021 the,to the post 2018 surge.

ix Hunt, John. "Comprehensive Planning Summit." Lecture, Comprehensive Planning Summit, Charleston, SC, March 24, 2021. https://www.charlestonrealtors.com/wp-content/uploads/2021/03/MarketNsight-Charleston-March-2021.pdf

# LAND USE

Land Use informs the development characteristics of the land. It considers existing and future land use and is influenced by all other plan elements. The findings, projections and conclusions from each of the other plan elements should influence how land should be used and where.

Charleston has seen extraordinary change in the last half century. The City has doubled in population and increased in area nearly sevenfold since the 1970s, all while the effects of climate change begin to reverberate throughout the Lowcountry. The interaction between the two forces of growth and climate make flood risk a moving target, creating new areas of risk and exacerbating old ones. While water has always been a feature of this area, recent flood events and changing tides have highlighted the urgency with which we must plan for adaption and improved ways to live with water. The Charleston City Plan aims to direct the development of Charleston over the next ten years with an awareness of both the long-term trends affecting our community and mitigation of existing threats.

Determining how the community should develop over the next ten years is an essential component of any local comprehensive plan. This plan is no different, yet it seeks to depart from traditional land use planning strategy and create a guide



#### **KEY TERMS**

100 Year Floodplain refers to areas with a 1% or greater chance of shallow flooding each year, with an average depth ranging from 1 to 3 feet.<sup>i</sup>

Compatible Uses are uses that are complimentary to each other when in close proximity, as opposed to incompatible uses which present environmental or other problems such as noise, odor, safety and pollution.

Connectivity refers to street connections that provide travelers, whether by car, bicycle or by foot, safe and efficient opportunities for trip-making by multiple options.

**Density (Population Density)** is an indicator of how crowded, or spread-out, a population is. In land use planning the most common expression is the number of dwelling units per acre (ex. 1.5 du/ac is a low density area and 26.4 du/ac is a high density area).

**Dwelling Unit** is a legal term often used in land use to describe any room or group of rooms located within a structure and forming a single habitable unit with facilities that are used, or are intended to be used, for living, sleeping, cooking and eating.

for the City with water first in mind. This plan uses an analysis of land and water as a basis for mapping out future development patterns and land use policies. This is the first time in Charleston's history the water first approach has been used in land use planning. Water is the key to how we must begin to meet, head-on, the current and future risk water poses to our community and the opportunities we have to enhance it as our biggest asset.

The City Plan Land and Water Analysis (LWA), completed by a team of consultants that also led Dutch Dialogues Charleston, began from the ground up with a study of fundamental aspects of land and water. The team mapped multiple types of water, from tide to rain to storm surge, and met with local communities and stakeholders to get an on-the-ground sense of flooding throughout the city. Watershed boundaries, not political boundaries, guided the analytical approach. Within each watershed, the analysis began with elevation (what is the land's relative risk?), mapped watershed sensitivity (how does land affect its surroundings?), and overlayed environmental sensitivity (where are critical habitats and ecological resources sea level rise. iv located and how are they changing?). The outcome of the analysis is four broad planning strategies for the City, with its citizens, to weigh as it reimagines its future: Grow, Defend, Adapt and Reserve.

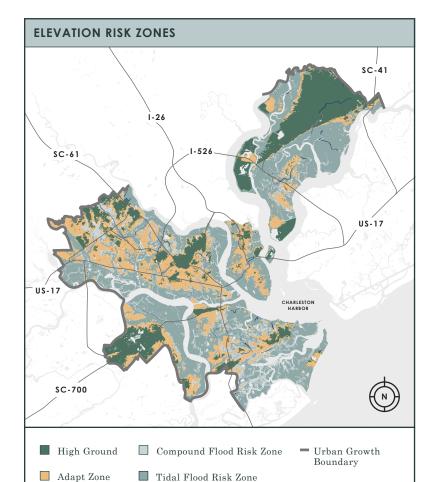
project recommendations, but the underlying area for marshes to grow will be important data to inform future City decisions. The goal of the City Plan LWA is to create a way to see flood risk and opportunities to increase resiliency in Charleston that inform the next decade of change and beyond. See Appendix J for the full City Plan LWA.

### **ELEVATION-BASED LAND USE**

Key to our understanding of water, and its interaction with land, is elevation. The city's proximity to the ocean means we are heavily affected by tides and at greater risk of hurricane storm surge than higher, inland areas. Elevation is a significant indicator of tidal flood risk and storm surge risk and determining land elevation is an important first step in mapping out where development can be accommodated and where it may be necessary to pull back.

The City Plan LWA provided a clear picture of the city's highest and lowest areas and a basis for determining a future land use map. This map begins with looking at the lowest elevations in the city that are now, or will potentially be, at risk for flooding; or in areas where, unabated, marshes will migrate over the next few decades. Of the four basic elevation risk zones mapped by the LWA, the Tidal Flood Risk Zone is the most important for future planning. This includes elevations of approximately 7 feet and below which is the point where tidal flooding of land can occur and where marsh migration is likely to occur with 3 feet of

The Tidal Flood Risk Zone boundary informed the creation of boundaries of the Low Impact/Conservation land use category on the City Plan's Future Land Use Map, where flooding and marsh migration is The analysis does not provide a set of policy or likely over the next few decades. Reserving for areas that are undeveloped. For areas that are already developed, it may be more appropriate to defend properties from flooding or adapt properties. It is important to note that even in the absence of elevation-based land use recommendations, the prospect for



HIGH GROUND High ground is defined as land outside of the FEMA 100 year floodplain and above the NOAA max category 3 storm surge. High ground has the lowest flood risk and stormwater detention here has the greatest watershed benefit.

**ADAPT ZONE** The adapt zone consists of land outside of the FEMA 100 year floodplain that is still within the NOAA maximum storm surge of a category 3 hurricane. Rain and storm surge flooding in this zone is infrequent but not impossible.

COMPOUND FLOOD RISK ZONE This zone encompasses areas within the floodplain above the tidal flood risk zone where flood risk comes from a mixture of rainfall, runoff and tidal conditions.

TIDAL FLOOD RISK ZONE This zone encompasses the lowest land in Charleston. Nearly 100% of this zone is in the 100 year floodplain. Flooding is frequent and can come solely from tidal events independent of precipitation. Sea level rise driven marsh migration occurs in this dynamic zone.

#### **KEY TERMS (CONT.)**

Future Land Use Map is a major component of the City Plan which brings together various aspects of the plan into a visual guide for land use and development in the city. The map is an articulation of the community's vision of how the city develops, where it is appropriate to expand, where we should scale back and, while not a zoning map, it helps the community make land use and growth management decisions now and into the future. Intended as a general guide rather than a regulatory tool, the map is not parcel-specific and boundaries not exact.

Infill Development refers to the development of vacant or under-developed parcels within existing urban and suburban areas that are already largely developed.

Land Use is the term used to describe the human use of land. It represents the economic and cultural activities (e.g. agricultural, residential, industrial, recreational, etc.) that are practiced at a given place. ii

Marsh Migration is when the existing marsh gradually shifts inland onto previously dry land as a result of sea level rise.

Mobility is defined as the potential for movement and the ability to get from one place to another using one or more modes of transport to meet daily needs.

Public Right-of-way (ROW) refers to the area on, below or above a public roadway, bicycle lane, sidewalk or other structure that is set aside expressly for the provision and maintenance of transportation infrastructure.

Storm Surge is the abnormal rise in seawater level caused solely by a storm's winds pushing water onshore, measured as the height of the water above the normal predicted tide.

Tidal Flooding refers to flooding caused in lowlying areas as a result of the natural ebb and flow of tides. Tidal flooding can happen independently of rain or storm events.

Traditional Block Patterns refers to the traditional (historic) patterns in which city blocks are shaped and arranged, including size, shape and surrounding street patterns.

Urban Growth Boundary is a boundary line that surrounds the City of Charleston, discouraging suburban or urban growth in the more rural areas outside the UGB.

Walkability is a measure for how friendly an area is to walking. Factors influencing walkability can include sidewalks, traffic conditions and crosswalks, among others.

Watershed is a land area that channels rainfall to creeks, streams and rivers, and eventually to outflow points such as reservoirs, bays and the ocean.iii

Zoning refers to local government regulations that enforce standards for use and design of individual parcels.

future development in these low-lying areas is already severely limited if not impossible due to recent updates to the City's Stormwater Design Standards Manual.

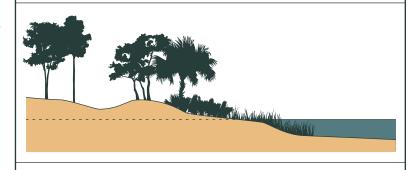
Also informing the Future Land Use Map is the High Ground Elevation Risk Zone. This zone encompasses the highest elevations in the city generally 15 feet and above (12 feet and above on the Peninsula\*). The High Ground Zone was used to map out areas of the city appropriate to relieve pressure for growth in other areas by allowing for more intensity, residential density and a wide range of uses. These areas often include already intensely developed areas such as the Meeting/King spine of the Peninsula, areas with exisiting or future transit routes and areas ideal for potential redevelopment along Sam Rittenberg Boulevard, Maybank Highway and Clements Ferry Road. While flood risk is low in these areas, development also carries the responsibility of not impacting stormwater in the downstream parts of the watershed. The Land Use Categories found in the High Ground Zone (and highest ground on the peninsula), are City Centers and Neighborhood Edge.

The Adapt Zone and Compound Flood Risk Zone comprise areas of the city within the Urban Growth Boundary typically somewhere between the highest and lowest land elevations. Flood risk in these areas depends greatly on a combination of elevation (especially for storm surge) and conditions specific to their watersheds. Depending on the site, varied combinations of Defend, Adapt and Reserve strategies will apply.

### MARSH MIGRATION: WHAT TO EXPECT

**MARSH MIGRATION** is when the existing marsh gradually shifts inland onto previously dry land as a result of sea level rise.

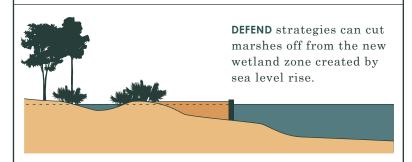
#### **EXISTING MARSH**



#### MARSH MIGRATION AND GROUNDWATER SURFACING



### SEA WALL AND MARSH EXTINCTION



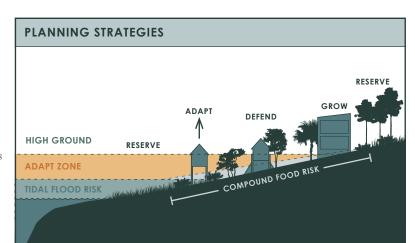
\* While an elevation of 15 feet or greater is considered high ground for all other areas of the City, the Peninsula is viewed with a different lens. The threshold for high ground on the Peninsula begins at an elevation of 12 feet or higher because much of the Peninsula is already heavily developed and numerous flood and storm surge protections (in the manner of "Defend" strategies) are either already in place or are planned. Future Defend strategies and additional measures will continue to be necessary to protect the entire Peninsula and Neck area from most flood and storm events, especially significantly developed parts that are low and most vulnerable to future sea level rise and storm surge.

# **FUTURE LAND USE MAP**

The Future Land Use Map is comprised of 12 land use categories specifically tailored to the needs of Charleston and adjacent planning areas. Each category defines the characteristics and, in some cases a range of densities, to illustrate potential future land uses on the map. Most of the categories appear exclusively with the Urban Growth Boundary (UGB) while the Rural category is intended to remain the defining land use outside the boundary.

Overall, the area within the UGB, excluding rivers and the Charleston Harbor, comprises approximately 135 square miles of developed, undeveloped, or natural area. Given the nature of the Lowcountry, not unexpectedly, the Natural/Wetland area (38%) is the most prevalent category within the UGB. This, along with Park area (3%) and uncategorized rights-of-way (8%), means about half of all area in the UGB is undevelopable or protected. The other half of the planning area is made up of categories where some level of development is appropriate ranging from the low density/intensity Suburban Edge category to the higher density/intensity City Centers and Neighborhood Edge categories.

The Future Land Use Map categories representing the most intensity of uses and highest residential densities (City Centers, Neighborhood and Neighborhood Edge) only comprise about 8% of the area within the UGB while the low to medium density categories make up a significant percentage (39%) of the map. Because City Centers



**ADAPT** Retrofit vulnerable existing infrastructure to be resilient to water risks. Raising structures reduces risk with limited to no increase in watershed sensitivity. However, adaptive capacity is limited by building typology.

**RESERVE** Restore and preserve natural ecosystems. Reserve is applicable to all zones and should factor future change. Ecosystems providing stormwater benefits and essential wildlife habitats exist throughout Charleston and should be preserved.

**GROW** Responsibly increase development and population density. Growth makes the most sense in areas with low sensitivity and low risk. Growth must occur in tandem with water management.

**DEFEND** Protect buildings and infrastructure with engineered measures such as berms, flood walls and pumps. Defensive measures should be reserved for areas with the highest risk and lowest sensitivity (e.g. where the displacement of floodwater will not exacerbate risk elsewhere).

#### **LAND USE**

occur in various parts of the city, context is key to land use decision-making in these areas. The density and intensity of uses will vary depending on the character of the surrounding neighborhoods, especially those in historic areas or predominantly residential areas. City Centers in the heart of the peninsula might look different than in the Upper Peninsula and take varying forms in suburban areas such as West Ashley or James Island.

### Right-of-Way.

While not a land-use category on the Future Land Use Map, rights-of-way (property occupied by roads, highways and rail-lines) are important because they take up a significant amount of high land in the city. Rights-of-ways make up 8% of the city within the UGB.

#### OTHER LAND USE TOOLS

#### African-American Settlement Areas

African-American settlement communities and neighborhoods were established during the Reconstruction years (1865-1877) and through the early 20th Century by freed Gullah-Geechee people and their descendants. They are defined by their ancestral connections to the land and their shared history, identity, and cultural institutions such as schools, churches and businesses. Due to their rich history and contributions to our region, these communities are acknowledged as significant cultural resources that are worth protection and investment; and whose residents are entitled to agency and authority regarding future development and investment. Therefore, their approximate boundaries are included on the Future Land Use map to give them prominence and ensure future land use planning is done in concert with the communities' goals.

# Urban Growth Boundary (UGB)

An essential component of the City Plan Future Land Use Map and land use management strategy is the concept of defining an edge for the urban and suburban development. The Urban Growth Boundary (UGB) has been a key part of city planning since it was introduced in the year 2000 and has strong community support as an approach to preserving our natural, historic and agricultural resources outside the developed parts of the city. Interjurisdictional coordination is a key factor in the success of the Charleston region's UGB and could not be maintained without support from the surrounding Charleston and Berkeley County governments. In support of the UGB, maintenance of appropriate zoning by the City and Counties inside and outside the boundary is necessary to balancing the need for future development with the desire to protect the less developed, rural areas outside the city. Along with local governments, public service entities and utility companies may also set service areas similar to the location of the UGB to further strengthen its purpose.

#### Future Planning Area

These are areas for which there is not a definite land use recommendation in this document, but that would be subject to further public planning activities before any development approvals would occur.

## LAND USE CONSIDERATIONS BY AREA

#### PENINSULA (8 SQUARE MILES)

The Charleston Peninsula, including the Neck area, is the urban center of Charleston (both the city and region) and contains the widest diversity of land uses and highest residential densities of anywhere in the city. Blocks are small and buildings close

together making for a walkable, urban area and perfect for biking, transit and other modes of transportation. As in most urban cores, commercial, institutional and industrial uses (combined 66%) make up the majority of developed area while residential area (33%) makes up of most of the balance.

Charleston has a long history of building protective structures at the waters edge. As described in the Dutch Dialogues, the Peninsula will likely eventually function as a self-contained water management entity, similar to the City of New Orleans today. Barriers will be needed to keep high tides as well as storm surge out and pumps will be needed to manage rainfall and groundwater within. Once a perimeter is established it must be operated and maintained in perpetuity, as existing assets and investments will increasingly depend upon it. In partnership with the US Army Corps of Engineers, a study of the feasibility and effects of a Peninsula barrier system is underway and may warrant further consideration as part of an update to the Charleston Downtown Plan.

Elevation analysis on the Peninsula reveals the highest parts tend to be the areas already containing the highest intensity of uses, but some high areas such as the planned Magnolia development on the Ashley River, Meeting Street Road in the Neck area, Laurel Island in the Upper Peninsula, and the blocks along the proposed Lowcountry Rapid Transit Route (LCRT) are also suitable for higher density and mixed-use. The future bus rapid transit system will be an important transportation link for the region and its planned hubs on the Peninsula are key areas for higher residential density infill and redevelopment within walking distance.

### WEST ASHLEY (46 SQUARE MILES)

West Ashley has been one of the city's main growth areas since the 1960's and many unique neighborhoods range from near-century-old neighborhoods close to the Peninsula to new subdivisions west of I-526. While most of the area is in City boundaries, there are still a few hundred properties in unincorporated Charleston County. Residential development is the dominant existing land use making up over 60% of all developed area with 43% being single-family development. Commercial, institutional and agricultural land use makes up the rest.

Still growing, most new development is occurring near Bees Ferry Road with some planned yet undeveloped next to the Urban Growth Boundary (UGB) at the western edge of the city. The UGB in outer West Ashley is strengthened by a large buffer of future parks, and other conserved lands, just outside the boundary from Savannah Highway to the Ashley River.

Like other areas of the city, elevations in the West Ashley range from very low (below 7 feet) to high (above 15 feet). The highest parts of this area are generally along Sam Rittenberg Boulevard and parts of Ashley River Road inside I-526. These areas, along with the redevelopment area of the former Citadel Mall, fall in the City Centers and Neighborhood Edge land use categories where the most infill and redevelopment may occur over time to accommodate growth.

Low-lying areas along the Ashley and Stono Rivers, and several tidally influenced creeks winding inland, now fall into the Low Impact/Conserved land use category to reserve space for future marsh migration. Some areas under the Low Impact/Conserved category, which makes up about 17% of

West Ashley, contain existing development and may be in need of Adapt and Defend measures now or in the future.

#### **JAMES ISLAND (26 SQUARE MILES)**

James Island has seen the least amount of population growth and development of all city areas over the past decade and is anticipated to see only about 5% growth over the next ten years. About 56% of existing development is residential with institutional (including parks and schools) being the next highest land use type (28%) James Island also has the highest percentage of park space (4.55%), natural area (58%) and total undevelopable area (wetland, park, right-of-way, or other protected area) at 72 percent.

Much of James Island is considered to be in low-lying areas prompting a high occurrence of the Future Land Use category of Low Impact/Conserved (13%). A fair amount of existing development falls into the Low Impact/Conserved category as well as some undeveloped areas adjacent to these existing areas. It is important that future development in these areas be limited so as not to impact surrounding development in the watershed, health of the marsh or water quality.

The few high spots on the island are where the majority of growth will be directed in this plan. This includes parts of Maybank Highway and small sections of Folly Road that not only have higher elevations but carry the only transit routes on James Island.

The City continues to maintain the UGB in the southwest area of the island. To reinforce the purpose of the UGB, the City Plan moves the boundary slightly to the west side of Folly Road to include areas that are more suburban in context inside the UGB. By allowing appropriately scaled development along Folly Road in this area, it relieves some of the pressure to develop the Rural land use area outside the UGB. Four governmental jurisdictions and one public service entity serve James Island making it extremely important that the City of Charleston coordinates land use decisions with each. The Rethink Folly Road Plan is a model of coordination that works for this area.

#### **JOHNS ISLAND (16 SQUARE MILES)**

About 21% of Johns Island is within the UGB with most of that area in City limits. Existing development inside the UGB consists of mostly residential development (52%) agricultural uses (20%) and industrial area (made up mostly of the Charleston Executive Airport). One of the fastest growing areas in the city over the last decade, growth trends indicate the potential for 2,000 new residential units over the next ten years but developed at the lowest density of all city areas.

Ancient land formation in this area left a dune-like pattern of high and low areas. Much of the high land (15 feet or higher) is inside the UGB along Maybank Highway and bounded approximately by Brownswood Road, Cane Slash Road, River Road and Bohicket Road. It is here that most of the development on Johns Island will occur over the next few decades. The Future Land Use Map indicates a similar pattern of development concentrated on three nodes of Maybank, with less intense development in between, to the concepts supported in the original and subsequent Johns Island-specific plans adopted since 1988.

Most of the low-lying areas on the island occur along the Stono River and contain some existing low-density residential development. As with other areas of the city, the recommended Low Impact/Conserved Land Use category for these areas discourages new development while indicating the need for protective measures for existing development.

#### **CAINHOY PENINSULA (35 SQUARE MILES)**

The Cainhoy area is made up of Daniel Island and Wando, consisting of several smaller communities and neighborhoods up and down Clements Ferry Road. Annexed in the 1990s, Daniel Island was one of the first major planned communities. It includes a town center, a range of residential densities, schools, parks and job centers. Though Daniel Island is mostly built-out, along Clements

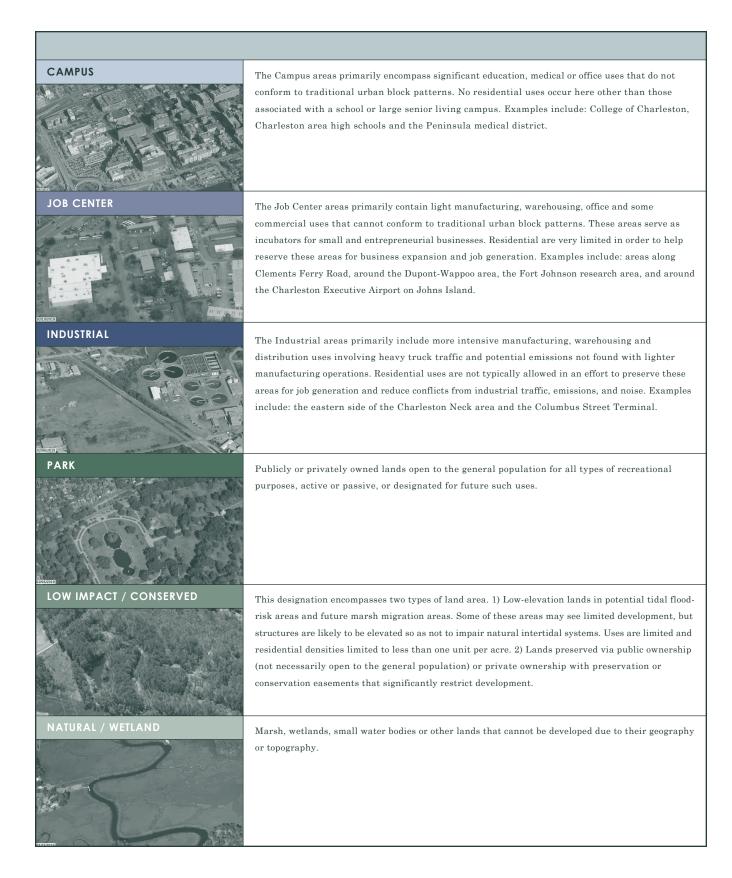
Ferry Road to the north, opportunity for a dditional well-planned development exists on some of the highest elevations in the entire city.

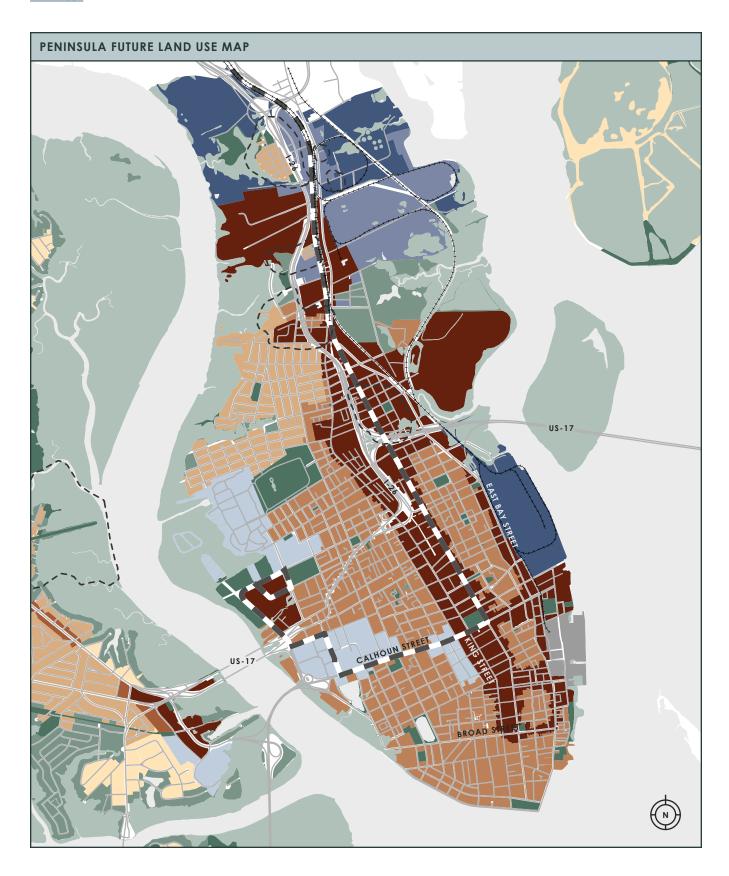
The highest elevations in Cainhoy occur along the Clements Ferry Road "spine" and main transportation route through the area. To the south, elevations drop off quickly and leave little area for responsible development. This area of the city is also home to large tracts of undisturbed long-leaf pine ecosystem. In an attempt to balance the need for high ground areas to locate future development and to protect our valuable natural resources, the current proposed land use map concentrates City Centers along Clements Ferry Rd, shifting quickly to lower intensity categories moving away from the road to the north and south. In anticipation of growth in this area, widening of Clements Ferry Road is underway.

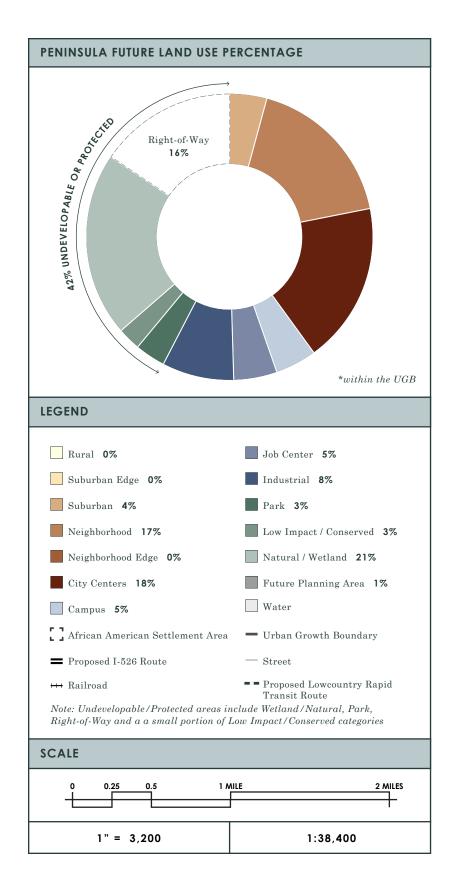
At the edges of the parts of Cainhoy and Wando area that are in the city, the Urban Growth boundary is reinforced by the Francis Marion National Forest and the Wando River.

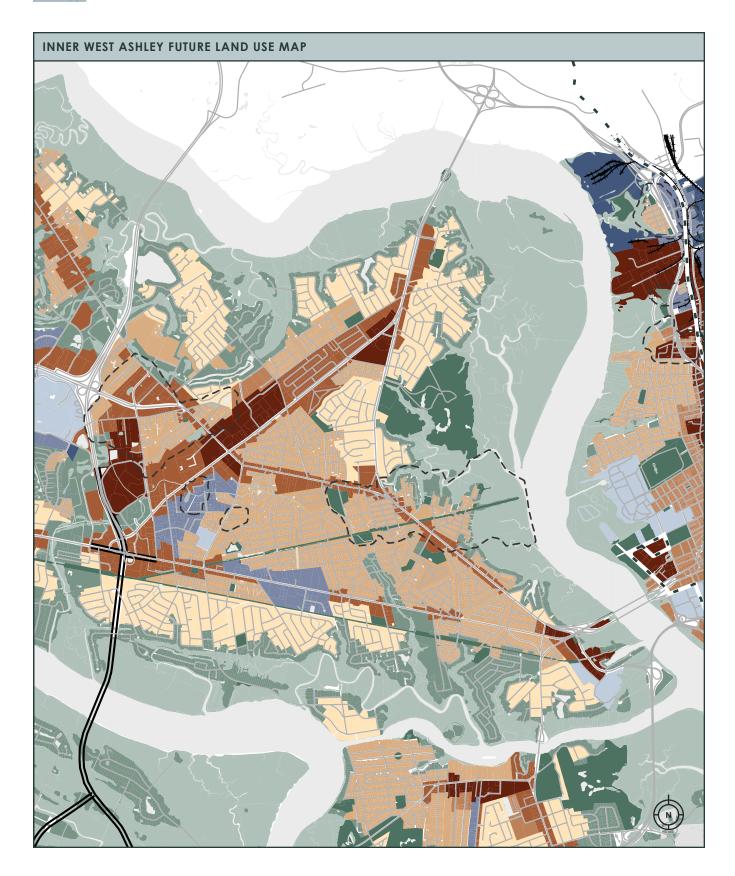
### LAND USE

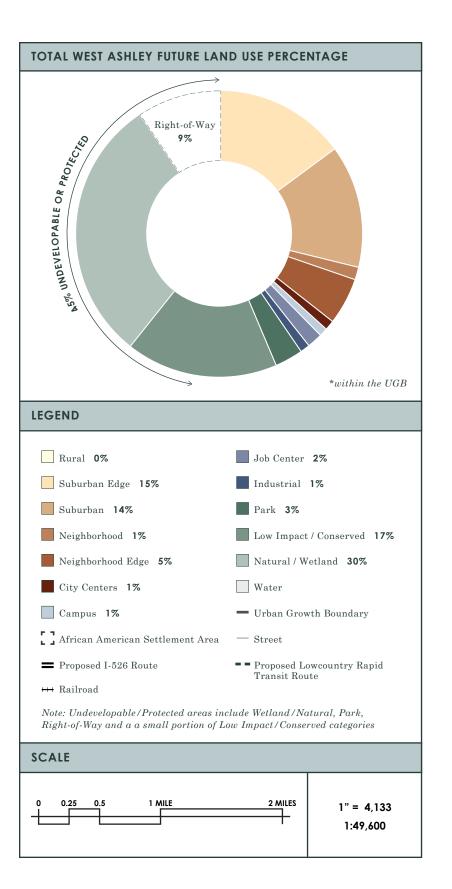
# **FUTURE LAND USE MATRIX** RURAL Areas outside of the designated Urban Growth Boundary, where densities would not exceed one unit per acre, and in general would be much lower. Development in these areas include low density residential (less than 1 dwelling unit per acre), agricultural areas, forestry areas, and recreational areas. Blocks do not follow a pattern and lots vary widely in size. SUBURBAN EDGE Generally suburban in character, but lower densities than typical suburban residential areas. Suburban Edge occurs mainly inside and next to the Urban Growth Boundary and often adjacent to neighborhoods in low-lying areas. Uses are almost exclusively residential and densities range from one to four dwelling units per acre (1 du/a to 4 du/a). Examples include: Sandhurst, Shadowmoss, and Stiles Point neighborhoods. Low intensity, suburban-style areas, adjacent to higher-intensity areas that include a mix of uses. Limited mixed-use occurs at key cross roads. Densities range from four to eight dwelling units per acre (4 du/a to 8 du/a). Examples include: Wagener Terrace, Riverland Terrace, Avondale, and St. Johns Woods neighborhoods. NEIGHBORHOOD These areas include a mix of uses, but primarily residential areas with regular block patterns and a wide range of building types and setbacks. Often next to more urban areas, uses can include a variety of neighborhood compatible services and densities range from six to twelve dwelling units per acre (6 du/a to 12 du/a). Examples include: Ansonborough, and Hampton Park Terrace neighborhoods. Theses areas are found on the periphery of existing neighborhoods and future neighborhoods. Uses vary widely but are mainly those things that residents need such as offices, stores and restaurants that are typically found along roads and transit routes forming the edges of neighborhoods rather than the centers. While traditionally threaded along major roads, over time, these areas could transition to more urban compact design patterns and contain more residential uses; especially along major transit routes. Residential densities can range from 6-20 units per acre. Examples include: many portions of Folly Road and some portions of Savannah Highway, Sam Rittenberg Boulevard and Bees Ferry Road. CITY CENTERS City Centers consist of the most dense and mixed-use portions of the city. The tallest buildings would occur here along with the most buildings of regional significance. Blocks may be smaller, streets have steady street tree planting, and buildings are set close to wide sidewalks. These areas occur on the highest ground elevations in the city allowing for best opportunities for new or infill development. Densities range from 10 dwelling units per acre and up. Development in City Centers is dependent on the surrounding context. Examples: The Central Business District of Charleston (portions of King, Calhoun, Meeting and East Bay Streets) and Daniel Island Town Center.

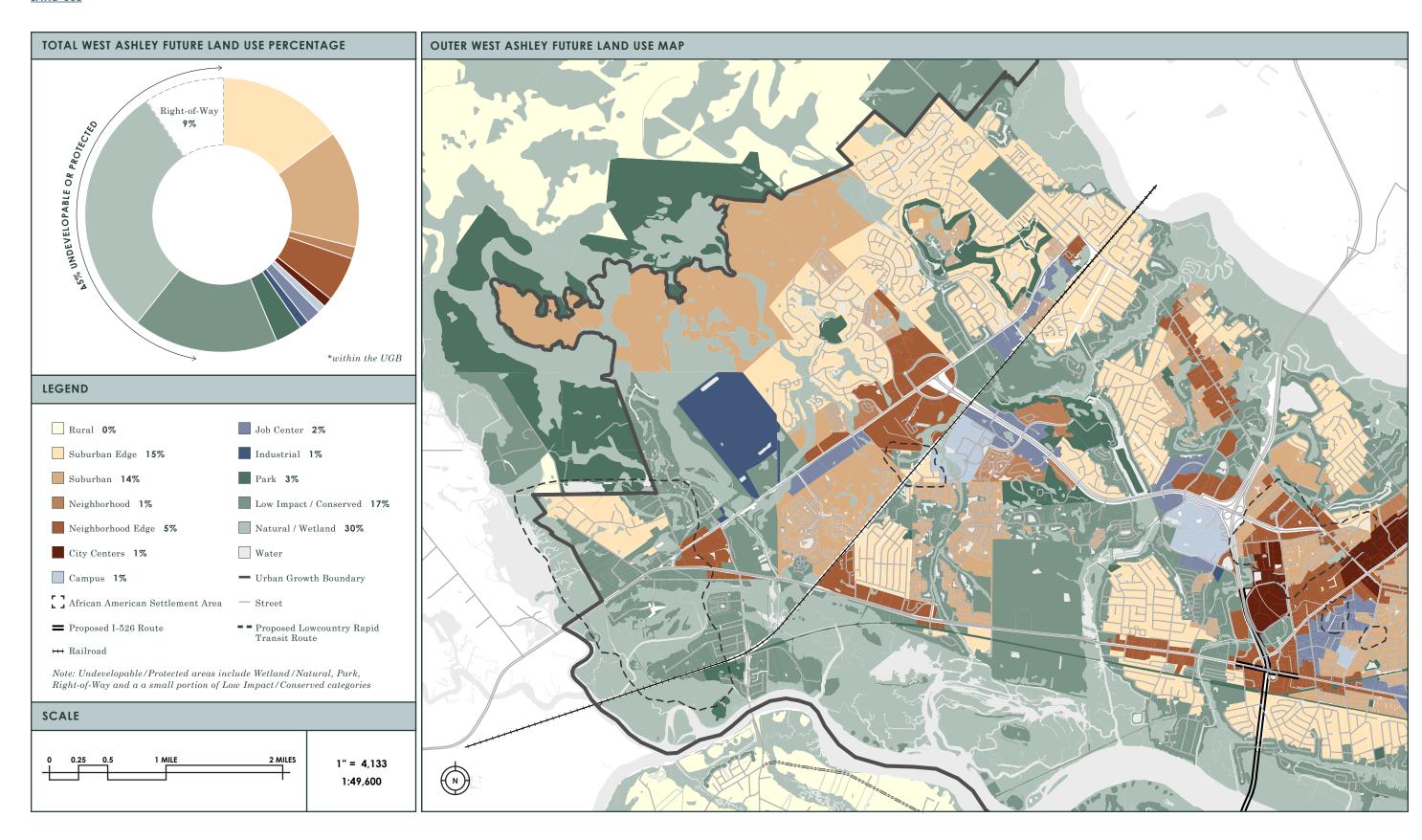


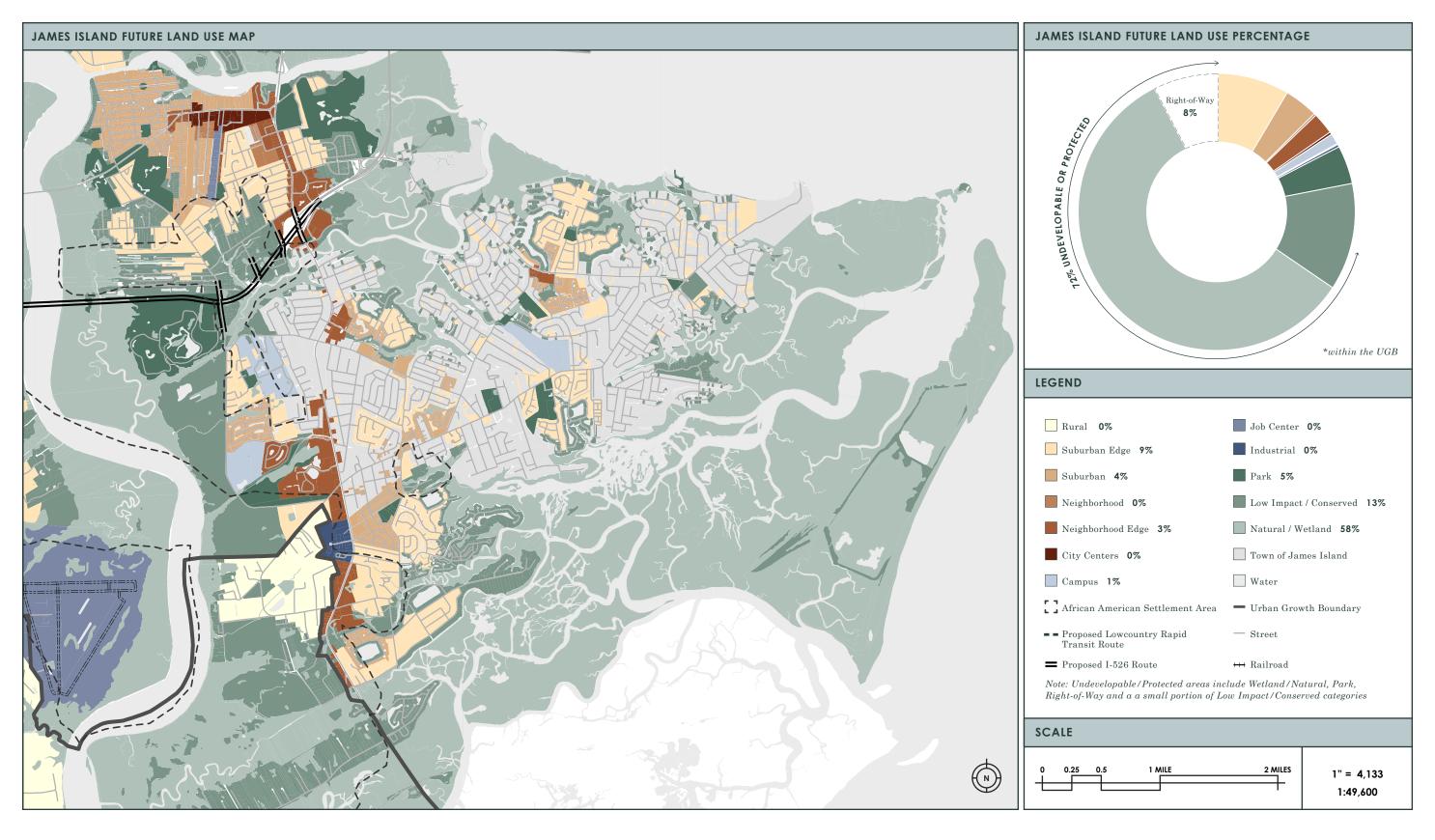


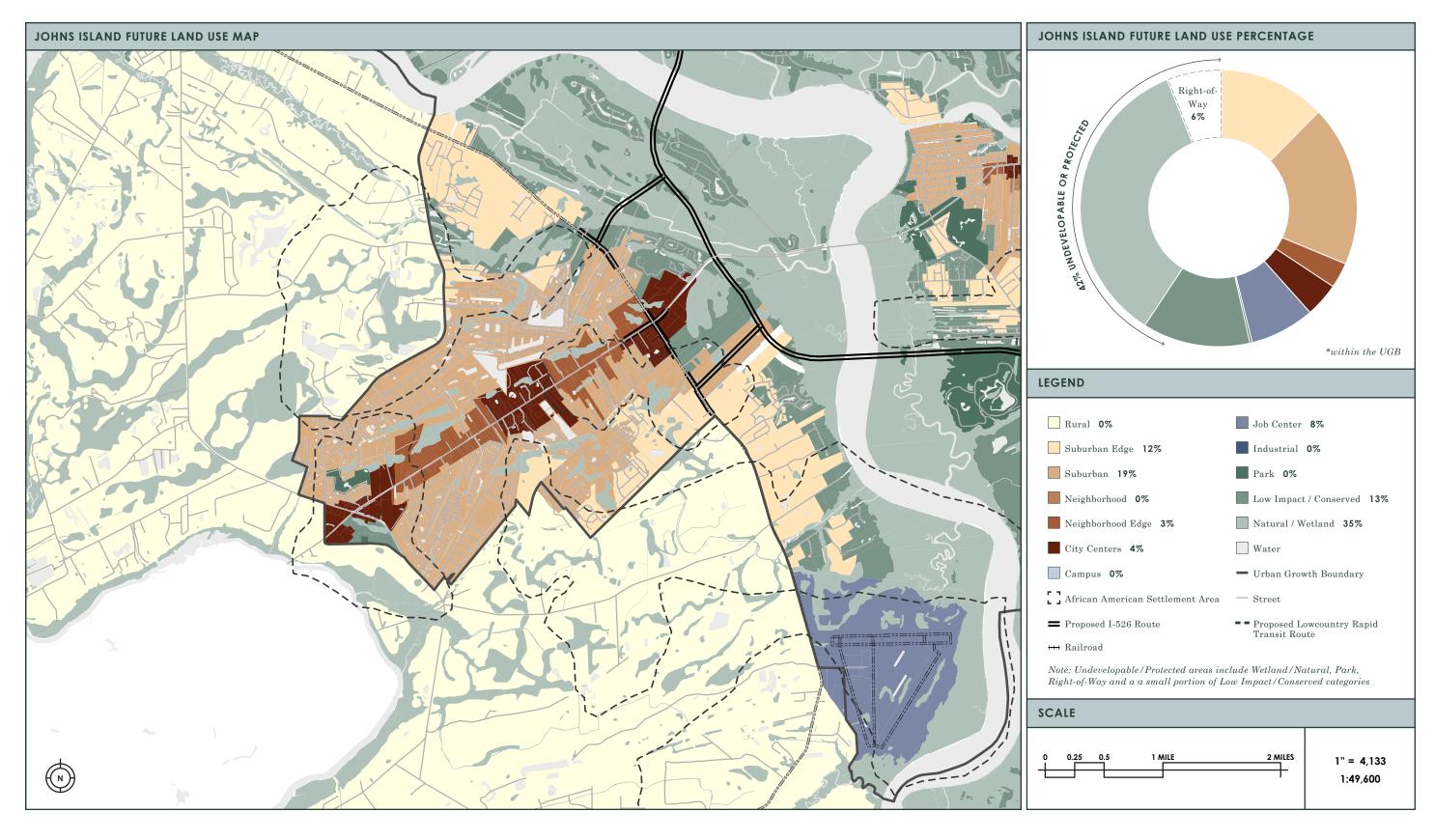


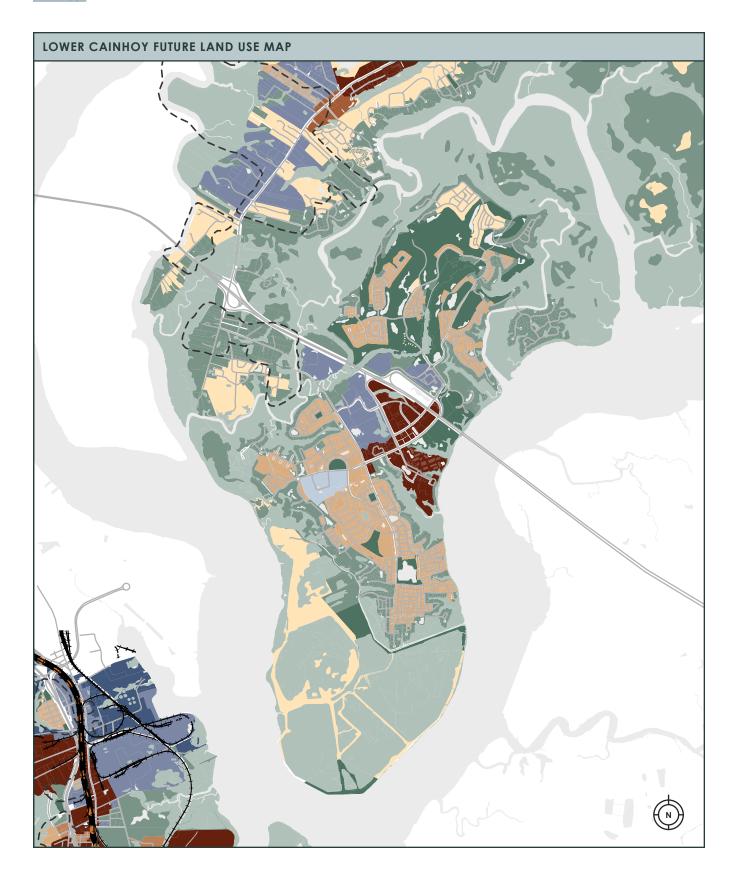


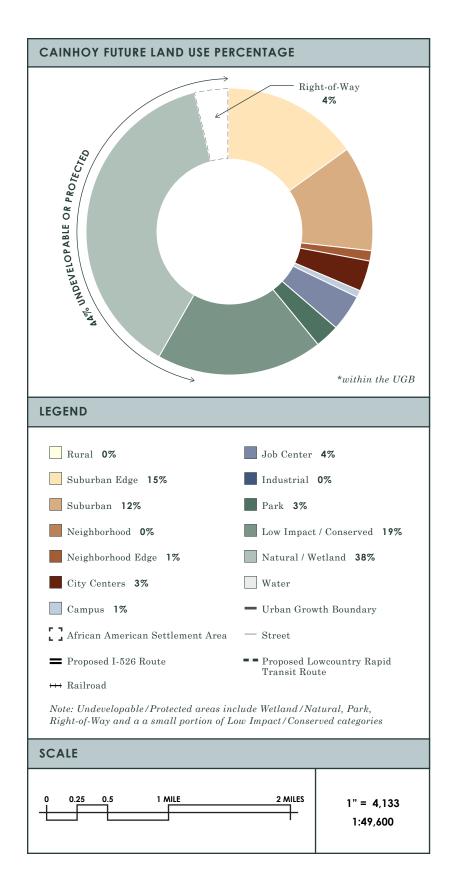


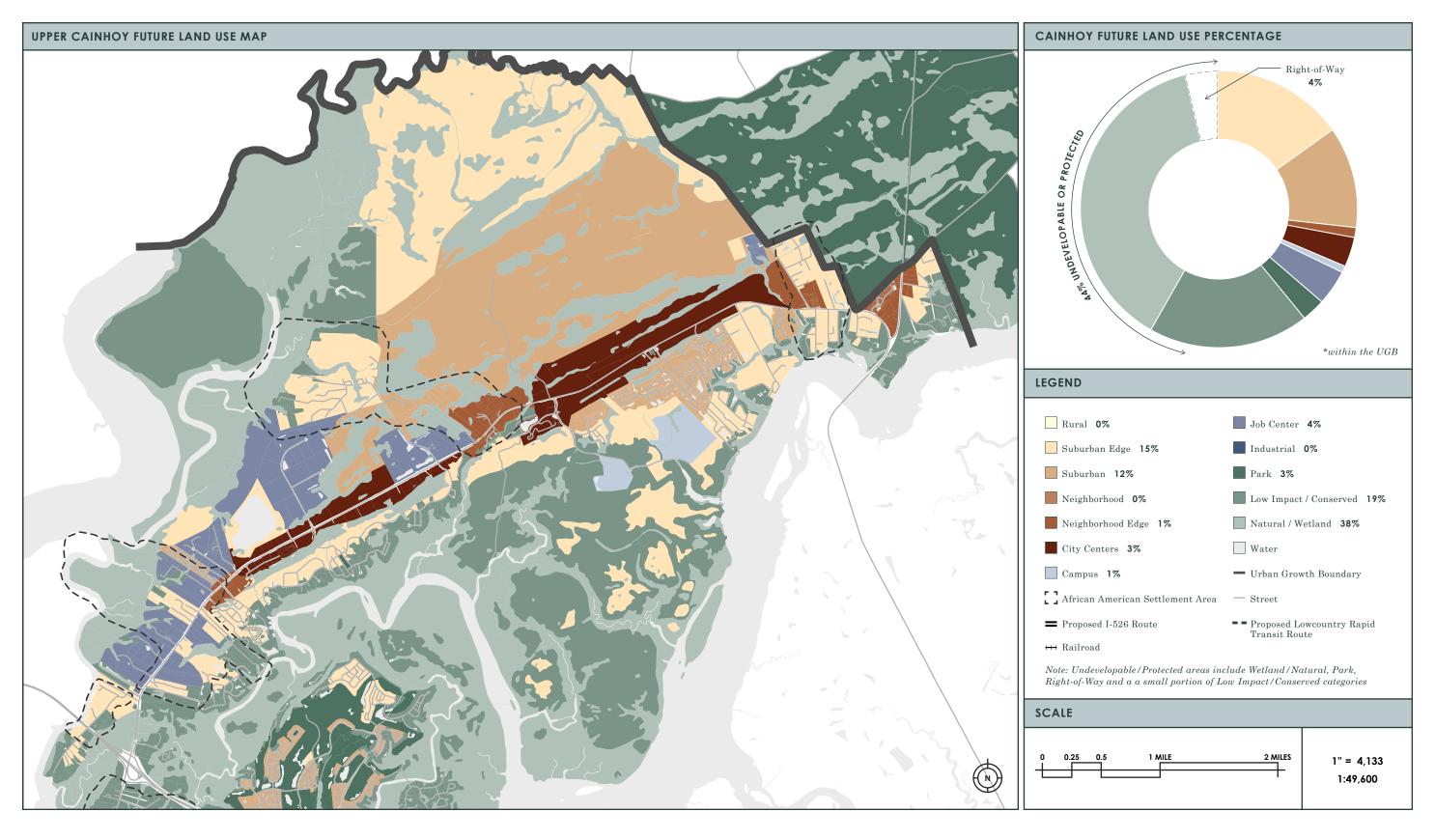


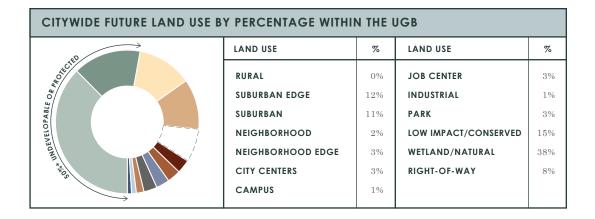












#### OTHER PLANNING PRINCIPLES

Other planning principles essential to preserve and enhance the quality of life include good urban design and interjurisdictional coordination.

Urban Design. Form and design are important to how a neighborhood feels and functions. Some of the most beloved neighborhoods in the city have traditional block and street patterns, efficient use of land and a compatible mix of uses. Walkability and connectivity are characteristics frequently cited by residents as contributing to a neighborhood's quality of life. Ensuring all neighborhoods have convenient access to parks and basic services is another feature of a great neighborhood. These characteristics allow residents mobility choice and opportunity to lead active, healthy lifestyles while easing the traffic on congested roadways. Neighborhoods should always be connected to a transportation network that includes pedestrian and bicycle access and roadways that include transit routes.

Inter-jurisdictional Coordination.

Another important aspect of land use planning in Charleston is inter-jurisdictional coordination. The City should work in parallel with adjacent and surrounding government jurisdictions that have land use and zoning responsibilities to be successful in land use management goals. All areas of the city require some coordination with either municipal, county or state governments to consistently serve the public interest and protect neighborhoods impacted by land use decisions. Whether it is creating local area plans with Charleston County such as the Dupont/Wappoo Plan in West Ashley, assisting the Town of James Island with boundary changes to better serve all citizens, or working with the State Ports Authority and state colleges on strategic planning on the Peninsula, cooperation achieves the best results.

# LAND USE RECOMMENDATIONS



#### 01.

Make the best use of the highest land around the city for residential, commercial and mixed use development, especially areas around current or future public transit corridors.

#### **)**2.

Reduce densities on low-lying, areas vulnerable to flooding, and eliminate development in future marsh migration areas. Adapt and defend structures currently in these areas wherever feasible.

### 03.

Pursue further studies of middle ground areas (between Tidal Flood Risk and High Ground Zones) and develop land use strategies based on analysis of individual drainage basins and stormwater easements.

#### 04.

Develop proactive measures to educate property owners and potential developers as to parcel elevation, areas of known flooding, drainage basins, soil types and drainage easement challenges that inform stormwater management on their site.

### 05.

Underscore responsibility of effective water management on higher ground of the city to better protect middle and lower ground downstream.

#### 06.

Encourage use of green stormwater infrastructure including clusters of trees, use of pervious surfaces, green roofs, etc.

#### 07.

Further limit fill-and-build construction methods in areas vulnerable to future flooding and potential marsh migration.

#### 08

Encourage walkable, efficient neighborhood patterns that support connectivity, mobility and health through development regulations and incentives.

#### 09.

Create a new zoning ordinance that is based on elevation, tied to the dynamic nature of sea level rise and other climate change implications, and that applies conservation design principles and other recommendations in this plan to all new and infill development.

# 10.

Support the Urban Growth Boundary (UGB) through land use regulations and incentives, continued coordination with adjacent jurisdictions and by protecting land outside the UGB via land acquisition, park development and conservation easements.

#### 11.

Continue to work collaboratively with Berkeley Charleston Dorchester Council of Governments (BCDCOG) and North Charleston to provide for transit oriented developments along the Lowcountry Rapid Transit Corridor.

#### 12.

Work with Charleston County to implement an overlay district for properties fronting along Ashley River Road between Magwood Drive and Church Creek to emphasize reduction of residential densities and encourage new business development along the corridor.

# 13.

Continue to improve collaboration with adjoining jurisdictions and existing entitled developments to implement the recommendations of the City Plan Land and Water Analysis: to make the best use of high ground, limit use of low-lying areas, create compatible densities and increase connectivity.

#### 14.

Continue research and outreach efforts with African-American Settlement Communities to ensure future development and land use recommendations are in concert with communities' goals.

<sup>&</sup>lt;sup>i</sup> FEMA Flood Zone Designations. Federal Emergency Management Agency (FEMA). Accessed May 2021. https://efotg.sc.egov.usda.gov/references/public/NM/FEMA FLD HAZ guide.pdf

 $<sup>\</sup>stackrel{\text{ii}}{\text{Land Use. US Environmental Protection Agency (EPA). Accessed May 2021. https://www.epa.gov/report-environment/land-use...}}$ 

iii What is a watershed? National Oceanic and Atmospheric Administration (NOAA). Accessed May 2021. https://oceanservice.noaa.gov/facts/watershed.html

iv This scenario is the same as that for Charleston's Sea Level Rise Strategy. The timeline is based on a 50-year (2030-2080) intermediate sea level rise scenario. In this scenario, sea level is expected to rise by approximately 3 feet by 2080, and 3.6 inches in the next 10 years. A tide above 7 feet in Charleston typically means water begins spilling into roadways, inundating storm drains and sometimes flooding structures at lower elevations. In the intermediate sea level rise scenario, 7-foot tides will become the average daily high tide by 2040.

# **RESILIENCE AND EQUITY**

Resilience considers the impacts of flooding, high water, and natural hazards on individuals, communities, institutions, businesses, economic development, public infrastructure and facilities, and public health, safety and welfare.

Equity is the guarantee of fair treatment, access, opportunity, and advancement while at the same time striving to identify and eliminate barriers that have prevented the full participation of some groups.

In many ways, the City of Charleston exemplifies the term "resilience." The city has endured through countless hurricanes, economic downturns, earthquakes, fires, devastating wars, and, of course, global pandemics. However, the impacts of these disasters hit some communities harder than others, and the ability to overcome these challenges is too often dependent on socioeconomic status, which in Charleston strongly correlates with race. There have been multiple examples in Charleston's past of disasters leading to displacement of communities - who could not afford or were not permitted to build back their homes that were impacted. Furthermore, systemic racism continues to perpetuate racial disparities across jobs, wages, education, health, and living conditions. These inequities create instability and threaten our community's ability to achieve resilience. Therefore, confronting inequality and promoting equity – racial and economic – are critical to ensuring sustainable growth and building resiliency. Resilience was added to the list of required elements in 2020. The Charleston City Plan also addresses equity as a key element of the plan. Both resilience and equity are interwoven throughout the plan and summarized in the Resilience and Equity recommendation matrix on page 142.

The following core beliefs shape the *Resilience and Equity* Framework, applied throughout the Charleston City Plan.

- 1. An agenda to build resiliency of a community must begin with achieving equity; and all strategies for resiliency should prioritize addressing existing disparities and protecting vulnerable communities from any unintended negative impacts of new policies or investments.
- 2. There are existing disparities that deny certain communities equal access to opportunities and healthy environments; and increase their vulnerability to disasters and climate-related displacement.
- 3. Communities are inherently stronger and more resilient when we can meet the unmet needs of all community members.

The purpose of this framework is to highlight the interrelated nature of resilience and equity. The recommendations for both elements have been combined due to their overlap, and the Resilience and Equity recommendation matrix at the end provides a summary of all recommendations throughout the plan other elements that serve to advance these goals in our community.

#### **KEY TERMS**

**Carbon footprint** refers to the amount of carbon dioxide and other carbon compounds that a particular person or group emits due to consumption of fossil fuels.

Climate Change refers to the changes in climate patterns that are primarily attributed to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.

Climate Gentrification is a relatively new term that has emerged as climate change has begun to have impacts on the real estate market. It describes the process of wealthier, often whiter populations moving to areas less exposed to the effects of climate change that were previously occupied by lower-income residents and communities of color, thus exacerbating displacement and disparities.

**Economic Equity,** or inclusive growth, is the full inclusion of all groups in an area's economic growth and prosperity, regardless of socioeconomic status; which requires addressing economic injustices at the root causes and creating opportunities for all.

Equity (vs. Equality) involves understanding and giving people what they need to enjoy full, healthy lives. Equality, in contrast, aims to ensure that everyone gets the same things in order to enjoy full, healthy lives. The principle of equity acknowledges that there are historically underserved and underrepresented populations, and that fairness regarding these unbalanced conditions is needed to assist equality in the provision of effective opportunities to all groups.<sup>ii</sup>

Equity Lens is the process of paying disciplined attention to race, ethnicity and other socioeconomic characteristics that are predictors of disparate outcomes, while analyzing problems, looking for solutions, and defining success. Application of an equity lens illuminates disparate outcomes, patterns of disadvantages and root causes.<sup>iii</sup>

Exclusionary Zoning includes zoning regulations that prevent the location of housing that is affordable to lower- and moderate-income communities out of certain neighborhoods through land use and building code requirements. Though exclusionary zoning is almost never explicitly discriminatory, it results in the perpetuation of racial and socioeconomic segregation.

**Food Deserts** are defined by the US Department of Agriculture (USDA) as areas in which a substantial number or share of residents have low levels of access to retail outlets selling healthy and affordable foods.

**Greenhouse Gas Emissions** refers to the production of any gaseous compound that traps and holds heat in the atmosphere, or creates the "greenhouse effect."

#### RESILIENCE

#### CLIMATE

Enacting policies that reduce the city's overall carbon footprint and adapt to and mitigate the effects of climate change.

Charleston is a place in which the effects of climate change are tangible and noticeable. Sea level rise, increased frequency and intensity of storms, extreme heat, wildfires, and droughts are all impacts of climate change and have the potential to affect public health and safety, racial and economic equity, economic development, plant and animal habitats, and overall quality of life for our city.

In 2019, the Mayor's Office of Resilience and Emergency Management (OREM) updated the City's Sea Level Rise Strategy, which serves as a strategic plan to protect citizens, neighborhoods, businesses, and critical city infrastructure from flooding due to sea level rise. In 2020, the OREM completed the City's All Hazards Vulnerability and Risk Assessment, which serves as a resource for City leaders to continuously assess and better manage impacts from hazards such as flooding, sea level rise, earthquakes, extreme heat, water shortage, and hazmat. In 2021, the ORS updated the City's Climate Action Plan. This plan outlines a strategy for programs, projects, and policies that the City can implement to reduce greenhouse gas emissions and mitigate climate change. The City Plan Land and Water These infrastructure projects include "grey" Analysis used projections from the Sea Level Rise Strategy to show how elevation risk zones will change over time with rising sea level.

#### **FLOODING**

Enacting policies that protect community members from the effects of flooding.

In 2015, Charleston received over 20 inches of rainfall in an event known as the "Thousand Year Rainfall," causing widespread flooding throughout the city. Since then, other major flood events during hurricanes Irma and Matthew have served as continual reminders of the city's vulnerability to flooding. With sea level rise and other effects of climate change, the total geographic area impacted by flooding and the intensity and frequency of flood events will increase.

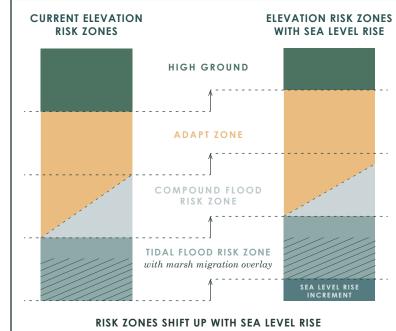
This recent history and looming threat of sea level rise have created an increased sense of urgency among local policymakers to better understand and reimagine water management in the city. In 2018, Mayor Tecklenburg and City Council approved the creation of the City's first Stormwater Department with the mission of alleviating flooding and improving drainage throughout the city. The City has also contracted with a group of independent, highly skilled engineers and subject area experts to form the new Stormwater Program Management team. These teams have strengthened the City's Stormwater Design Standards Manual for new development/redevelopment and completed and planned dozens of drainage projects.

more traditional man-made drainage infrastructure such as the massive Spring-Fishburne tunnel and pump project featuring a 30-foot diameter drop shaft running 174

The nearly \$200m Spring/ Fishburne Drainage Project began in 1999 and is expected to be complete by  $2024.\ Photo\ courtesy$ of City Department. of Stormwater Management

# **ELEVATION RISK ZONES & SEA LEVEL RISE**

The elevation risk zones shift upwards with sea level rise. By defining risk in terms of elevation, risk mitigation strategies can be adapted to future sea level rise scenarios.



Zones may not shift evenly depending on drainage conditions.



#### **KEY TERMS (CONT.)**

Hazmat is the abbreviation for hazardous materials, which is defined by the National Oceanic and Athmospheric Administration (NOAA) as the substances that pose a reasonable risk to health, property or the environment such as toxic chemicals, fuels, nuclear waste products, and biological, chemical and radiological agents.

Impervious Surface in the City of Charleston Zoning Ordinance is defined as a surface which is compacted or covered with material that is resistant to infiltration by water, including, but not limited to, most conventional surfaced streets, roofs, sidewalks, parking lots, and other similar structures.

**Net Zero** refers to achieving an overall balance between emissions produced and emissions taken out of the atmosphere.

Racial Equity is the condition where one's race identity has no influence on how one fares in society. Race equity is one part of race justice and must be addressed at the root causes and not just the manifestations. This includes the elimination of policies, practices, attitudes, and cultural messages that reinforce differential outcomes by race.iv

Redlining refers to the practice by the Federal Housing Administration in the 1930's which refused to insure mortgages in and near African-American neighborhoods, while at the same time subsidizing construction of subdivisions with racial covenants that excluded any non-white household.v

Renewable Energy is energy created from source that is not depleted when used, such as wind or solar power.

Resilience can be defined as the ability for a community to overcome challenges confronting it and to survive through periods of hardship.vi

Sea Level Rise is an increase in the level of the world's oceans due to effects of global warming.

Systemic Racism also referred to as Institutional or Structural Racism, is a network of institutional structures, policies and practices that create (even if unintentionally) advantages for White people. and discrimination, oppression and disadvantages for racialized people.

Tree Canopy Cover is defined by the US Department of Agriculture (USDA) as the layer of leaves, branches and stems that provide tree coverage of the ground when viewed from above.

Urban Agriculture includes production (beyond that which is strictly for home consumption or educational purposes), distribution and marketing of food and other products within the cores of metropolitan areas and at their edges.vi

feet below grade, and "green" stormwater infrastructure like a simple street tree, which can intercept between 760 to 3,000 gallons of stormwater per tree per year. VII In addition to governance, infrastructure, and outreach, the Sea Level Rise Strategy identified land use planning as a key way to alleviate flooding.

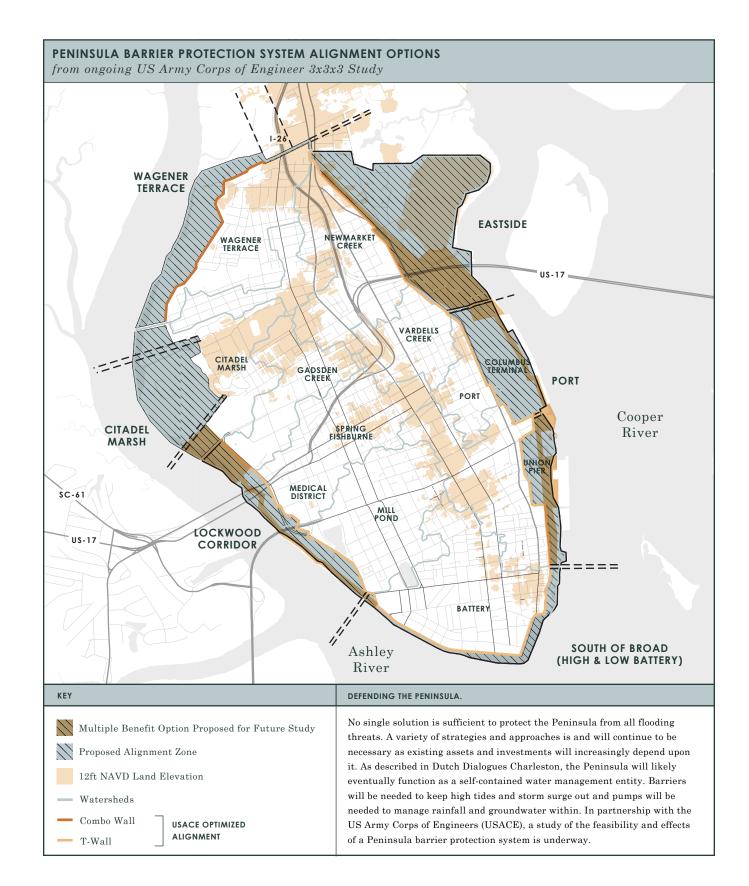
In 2019, Historic Charleston Foundation partnered with the City to undertake the Dutch Dialogues Charleston study. The Dutch Dialogues team worked with local, national and international experts to conceptualize a "living with water" future for Charleston, one in which the urban landscape works harmoniously with the natural flow of water. Dutch Dialogues provided guidance for achieving this vision through the use of planning, urban design, stormwater management, and natural resources/resiliency planning. To build on the Dutch Dialogues process, members of the same team returned to conduct the City Plan Land and Water Analysis. This study analyzed elevation zones, environmental sensitivity, and watershed sensitivity to guide land use decisions in the City Plan. The result is one of the most comprehensive and innovative future land use plans in the entire country in terms of stormwater and flooding resilience.

#### **ECOLOGICAL**

Enacting policies that protect the native plants, ecosystems and animals that define our region.

Native plants and animals, waterways and landscapes are some of the most defining features of Charleston and the Lowcountry as a whole. In the past, development of the built environment has often come at the cost of precious ecological resources. On the Peninsula, for example, only 17.4% of land is covered by tree canopy, and 62.8% is covered by impervious surfaces, according to the City's 2018 Trees to Offset Stormwater study. Vii From 1992 to 2016, the City of Charleston lost about 5% of its tree canopy according to researchers at the College of Charleston's Lowcountry Hazards Center. ix

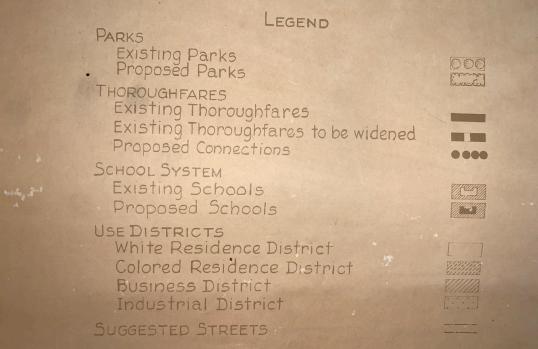
Since the 1990s, the City and Charleston County have taken key actions to preserve and protect natural resources. The Urban Growth Boundary is a significant planning tool implemented in the 1990s and reinforced over time that reduces the increased spread of suburban development and ensures areas surrounding the City's boundaries remain rural in character. The Charleston County Greenbelt Advisory Board continually awards grant funding for preserved green space for conservation and public recreation.



#### **RESILIENCE AND EQUITY**

Legend and portion of "General City Plan" map from 1931 Morris Knowles Report that provided the blueprints for the City of Charleston's first Zoning Ordinance. \*vi







Moving forward, the City's Department of Parks and Recreation is finalizing its first ever Master Plan, which will identify future parks needs and strategies for parks enhancements and new park creation. City Council recently approved a Conservation Subdivision ordinance, which allows developers to group buildings in smaller areas in order to preserve the majority of the area of the site as permanent green space. This is one example of a concept known as "conservation design." By applying conservation design principals to more zoning and planning policies in the future, the city can continue to develop in a more ecologically resilient manner, ensuring that the prized natural resources of the Lowcountry are safe for years to come.

#### SOCIAL

Enacting policies that promote health and wellness for all citizens regardless of age, race, or socioeconomic status.

According to the 2020 All Hazards
Vulnerability and Risk Assessment, the community members most at risk to environmental threats are often the most socially vulnerable. The Center for Disease Control defines social vulnerability as "the potential negative effects on communities caused by external stresses on human health. Such stresses include natural or human-caused disasters, or disease outbreaks."xi Low-income communities, communities of color, and communities with high concentrations of elderly people in the City of Charleston are disproportionately

Concept Rendering from West Ashley Greenway + Bikeway Master Plan.

#### **RESILIENCE AND EQUITY**



The Septima P. Clark Parkway is an urban highway constructed in the 1960's that divided a predominantly Black neighborhood and displaced many residents in the process. Image courtesy of © 2019 Eagleview.

vulnerable to extreme heat and exposure to hazardous materials (hazmat).xii

Zoning and Land use planning have direct impacts on public health. The Health in All Policies (HiAP) framework is a national movement to better infuse public health considerations into policy and programming across the wide spectrum of public services. Because behaviors and environment are the best determinants of health and wellness. programs that incentivize or enable healthy behaviors can have significant preventative health outcomes. Social determinants of health include "the conditions in which people are born, grow, work, live and age, and the wider set of forces and systems shaping the conditions of daily life."xiii Some planning policies that can address social determinants of health include safe and affordable housing creation; zoning and land use decisions on locations of job centers, supermarkets, and green spaces; complete streets which include pedestrian and bicycle facilities; and transit oriented development which reduces reliance on single occupancy vehicles, improving air quality.

Access to healthy foods is a key component of the HiAP framework. Due to a variety of factors, many predominantly nonwhite neighborhoods around our region are considered "food deserts" as residents have little or no access to grocery stores with fresh produce and other healthy foods. One proven strategy for addressing food deserts involves supporting local urban agriculture and community gardens. These gardens are often cared for by volunteers or nonprofit workers and provide a vital source of healthy, sustainable food production year round.

# **EQUITY**

The discipline of city planning can play a major role in advancing equity in cities, especially since it has directly contributed to creating inequities in the past. Many of the first zoning codes in American cities contained explicit language barring nonwhites from inhabiting specific areas of town until specific racial zoning was ruled unconstitutional in 1917. Despite this ruling, cities continued to consider race in planning practices and decisions. In the 1931 Report of the City of Charleston Planning and Zoning Commission, which



The Septima P. Clark Parkway is an urban highway constructed in the 1960's that divided a predominantly Black neighborhood and displaced many residents in the process. Image courtesy of Becca Hopkins.

provided the blueprints for the City's first zoning regulations, race-based residential districts were outlined in the plan.xiv These and more subversive measures such as racial covenants on deeds, exclusionary zoning and land use practices, and urban renewal programs in the 1960s, which cleared entire nonwhite and low income neighborhoods to make room for freeways, had devastating consequences that continue to persist today. The practice of redlining majority nonwhite neighborhoods by banks and other financial institutions further segregated and undermined the ability for nonwhite Charlestonians to build generational wealth.xv

These historical planning and real estateinduced inequities along with still-widening and Sustainability (PPS) enlisted the support racial wealth inequality are some of the reasons that the City of Charleston has experienced a decline in the number of lowincome and nonwhite residents over the past decade. During the City Plan public engagement process, many community members lamented this loss of socioeconomic and racial diversity, and advocated for more strategies to mitigate gentrification and reduce displacement.

Additionally, the Charleston community faces serious environmental and social threats which will require bold and strategic actions in the future. Without mitigation or intervention, adaptation can leave people behind, exacerbate disparities and contribute to climate gentrification. Many adaptation strategies, such as more sustainable building codes and elevating historic homes, require significant financial investment and have the potential to leave low-income residents behind. This is why it is critical to ensure that equity considerations are built into all plans, programs, and strategies that improve quality of life and make Charleston more resilient.

The Department of Planning, Preservation of the College of Charleston Community Assistance Program (CAP) to bolster staff's efforts to apply an equity framework to the Charleston City Plan. Graduate Assistants with the program shared best practice research, facilitated conversations with staff, and reviewed draft plan materials for opportunities to further apply an equity lens. Simultaneously, CAP was assisting the City's newly created Special Commission

of Equity, Inclusion and Racial Conciliation (EIRC) to establish their framework for racial equity. The EIRC Commission was created in June 2020 to create measurable outcomes, promote greater accountability, and coordinate community-wide efforts to dismantle systemic racism and achieve racial equity in the Charleston community.

The Charleston City Plan addresses racial and economic equity in all elements by acknowledging existing racial and socioeconomic disparities and their root causes; and including recommendations that prioritize protections, opportunity and improved quality of life for those communities that have historically suffered from differential outcomes due to race or socioeconomic status.

In addition to pursuing the recommendations included in this plan that advance equity, all future planning decisions and actions should continue to apply an equity lens by considering the following questions.

Are the impacted communities playing an active role in the decision-making process?

How does this (policy, project, decision or action) address existing disparities and prioritize underserved communities?

What measures are in place to ensure this benefits all residents equitably?

What are potential unintended negative impacts on vulnerable populations and what are strategies to prevent such impacts?

# RESILIENCE AND EQUITY RECOMMENDATIONS



### 01.

Work with other City departments to implement the recommendations in the All Hazards and Vulnerability Risk Assessment, Sea Level Rise Strategy, Climate Action Plan, Trees to Offset Stormwater and Dutch Dialogues Charleston.

#### 02

Work with other City departments to implement recommendations from the Special Commission on Equity, Inclusion and Racial Conciliation, when finalized.

#### 03.

Update the Downtown Plan to fully implement recommendations from various plans and studies that address flood protection, new development and redevelopment, and tourism management.

#### 04.

Develop and fund a program to address lack of access to Federal Emergency Management Agency (FEMA) and other disaster assistance aid for lower income households and heirs properties.

#### 05.

Collaborate with regional and state partners to increase preservation and restoration of saltwater ecosystems like our marshes and wetlands as these are key carbon sequestering assets.

# 06.

Create design guidelines for renewable energy standards in the historic district, with measures in place to prevent placing additional burdens on lower-income households.

#### 07

Expand incentives for sustainable construction and renewable energy via the zoning code, such as building certification programs like Charleston RISES.

#### 08.

Create more incentives that empower individual property owners and small-scale developers to play a more prominent role in efforts to increase resiliency and affordability in the Charleston area.

# 09.

Continue to promote urban agriculture and community gardens, especially in areas qualifying as food deserts.

### 10.

Reduce emissions to 50% below 2018 levels by 2030 to mitigate the city's impact on climate change.

### 11.

Reduce emissions to net zero by 2050.

### **12.**

Continue to study the effects of extreme heat and pursue policies that protect people in all areas of the city from extreme heat, especially lower income and elder community members who may have more limited ability to adapt.

# 13.

Prioritize City Plan recommendations that advance resilience and equity, included in the Resilience and Equity Recommendation matrix on pages 142 - 151.

<sup>&</sup>lt;sup>i</sup> Beeman, Anna. 2019. "Climate Gentrification and Resilience Planning: What is at stake for at-risk communities?" Vibrant Environment Blog, Environmental Law Institute, September 18. https://www.eli.org/vibrant-environment-blog/climate-gentrification-and-resilience-planning-what-stake-risk-communities#:~:text=In%20some%20cases%2C%20such%20as,by%20lower%2Dincome%20residents%20and

 $<sup>^{\</sup>rm ii}$  The Final Report of the Special Commission on Equity, Inclusion and Racial Conciliation and the "Racial Equity Framework Glossary" provided by the College of Charleston Community Assistance Program.

iii Ibid.

iv Ibid.

v Silver, Christopher (1997). The Racial Origins of Zoning in American Cities. Thousand Oaks: Sage Publications. p. 23.

vi Cox, R.W. and Miller, D.Y. 2014. Governing the metropolitan region: America's new frontier. New York: M.E. Sharpe.

vii The Final Report of the Special Commission on Equity, Inclusion and Racial Conciliation and the "Racial Equity Framework Glossary" provided by the College of Charleston Community Assistance Program.

viii United States. Green Infrastructure Center, City of Charleston, SC. Mayor's Office of Resilience and Sustainability, Department of Planning, Preservation, and Sustainability. Trees to Offset Stormwater. September 2018. Accessed May 2021. https://www.charleston-sc.gov/1567/Trees-to-Offset-Stormwater.

ix Ibid.

x The Impact of Forest Cover on Flooding and Climate Change in Charleston County, SC. College of Charleston Lowcountry Hazards Center. 2020. Accessed May 2021. https://gis.cofc.edu/portal/apps/MapSeries/index.html?appid=8dd072b2b2774b83h4807c95687co8bd

xi United States. City of Charleston, SC. Mayor's Office of Resilience and Sustainability. All Hazards Vulnerability and Risk Assessment. November 2020. Accessed May 2021. https://www.charleston-sc.gov/DocumentCenter/View/27994/All-Hazards-Vulnerability-Assessment-Full-Report.

xii "CDC/ATSDR's Social Vulnerability Index (SVI)." Centers for Disease Control and Prevention. April 28, 2021. Accessed May 10, 2021. https://www.atsdr.cdc.gov/placeandhealth/svi/index.html.

xiii United States. City of Charleston, SC. Mayor's Office of Resilience and Sustainability. All Hazards Vulnerability and Risk Assessment. November 2020. Accessed May 2021. https://www.charleston-sc.gov/DocumentCenter/View/27994/All-Hazards-Vulnerability-Assessment-Full-Report.

xiv Whitehead, Sandra, Ph.D, MPA. "Healthy St. Pete: Health in All Policies for a Healthier Community." Lecture.

xv "Report of the City Planning and Zoning Commission upon a program for the development of a city plan with specific study of certain features thereof." Created by Morris Knowles, Inc. 1931. Courtesy of the Charleston Library Society.

xvi Silver, Christopher (1997). The Racial Origins of Zoning in American Cities, Thousand Oaks; Sage Publications, p. 23.

xvii City of Charleston Records Division, Clerk of Council Department. Map accompanying 1931 "Report of the City Planning and Zoning Commission upon a program for the development of a city plan with specific study of certain features thereof." Created by Morris Knowles, Inc.

ther Plans, Studies, Reports Key		Type of Resilience/Equity Key
CAP Climate Action Plan  SLR Sea Level Rise Strategy	DD Dutch Dialogues  LWA Land and Water Analysis	EQ Equity  S Social Resilience  E Ecological Resilience
VRA All Hazards Vulnerability and Risk Assessme CTP Citywide Transportation Plan	nt HiAP Health in All Policies	C Climate Resilience F Flooding Resilience
OMMUNITY FACILITIES & PRIORITY INVESTM	ENT	
Prioritize stormwater and flooding solutions for Special Protection Areas (SPAs), older communities, and existing neighborhoods in Tidal Flood Risk zones.  Assign priority to areas in greatest need of improved infrastructure and amenities, in tangent with anti-displacement protections.		TYPE OF RESILIENCE/EQUITY EQ, S, E, C, F  OTHER PLANS, STUDIES, REPORTS SLR, DD, LWA
		TYPE OF RESILIENCE/EQUITY EQ, E, C, F OTHER PLANS, STUDIES, REPORTS
Grow the City's capacity to improve maintenance of existing drainage infrastructure.		SLR, DD, LWA, HFC  TYPE OF RESILIENCE/EQUITY E, C, F  OTHER PLANS, STUDIES, REPORTS
CULTURAL RESOURCES		SLR, DD, LWA
		TYPE OF RESILIENCE/EQUITY
Build, maintain and preserve an array of and sites, with an emphasis on increasing		EQ
communities, and areas of the city with fewer existing cutural resources.		OTHER PLANS, STUDIES, REPORTS
Support policies, incentives and plans that stimulate historic preservation, restoration and reuse of cultural resources, especially resources relating to African American heritage and history.		TYPE OF RESILIENCE/EQUITY EQ, S, C
		OTHER PLANS, STUDIES, REPORTS
Identify and protect significant sites citywide, including historic houses of worship, cemeteries and burial grounds, that contribute to Charleston's identity and represent its history; especially those sites significant to African-American heritage and history.		TYPE OF RESILIENCE/EQUITY EQ, S, C
		OTHER PLANS, STUDIES, REPORTS
	Update and maintain a cultural resource inventory to evaluate the status of known cultural resources, identify under-documented and/or threatened	
		TYPE OF RESILIENCE/EQUITY EQ, S, C

CULTURAL RESOURCES (CONT.)	
Support development of community plans for settlement communities within corporate City limits that outline future goals related to preservation,	TYPE OF RESILIENCE/EQUITY EQ, S, E, C, F
investment and development; and recommendations for policies and other strategies for achieving those goals.	OTHER PLANS, STUDIES, REPORTS
Work with neighboring jurisdictions to elevate the voices and concerns of settlement communities in ongoing conversations related to preservation,	TYPE OF RESILIENCE/EQUITY EQ, S, E, C, F
resiliency, gentrification and displacement, and future development and infrastructure projects.	OTHER PLANS, STUDIES, REPORTS
Increase the amount of markers and monuments documenting sites and key figures culturally and historically significant to Charleston's	TYPE OF RESILIENCE/EQUITY EQ, S, C
African-American and other underrepresented communities.	OTHER PLANS, STUDIES, REPORTS
ECONOMIC DEVELOPMENT	
Continue to create tailored training and support programs for women and minority owned businesses.	TYPE OF RESILIENCE/EQUITY EQ. S
minority owned susmesses.	OTHER PLANS, STUDIES, REPORTS
Explore opportunities to support new commercial and mixed-use developments to enter into community benefit agreements or other commitments to hiring	TYPE OF RESILIENCE/EQUITY EQ., S
residents from the surrounding neighborhoods.	OTHER PLANS, STUDIES, REPORTS
Increase access to fresh and quality food by attracting grocery stores to food deserts, expanding opportunities for food markets, and promoting small	TYPE OF RESILIENCE/EQUITY EQ., S
neighborhood groceries like corner stores on the Peninsula.	OTHER PLANS, STUDIES, REPORTS HIAP
Develop policies, programs, tools and resources to attract and recruit a racially diverse workforce in the City of Charleston and to promote an economy that	TYPE OF RESILIENCE/EQUITY EQ., S
provides a variety of jobs paying living wages.	OTHER PLANS, STUDIES, REPORTS
Focus on transit-oriented business incentives for offset in parking, business fees, or other fees associated with opening businesses.	TYPE OF RESILIENCE/EQUITY S, E, C
1000, of outer 1000 abbootated with opening businesses.	OTHER PLANS, STUDIES, REPORTS CTP, CAP, HIAP

### **RESILIENCE AND EQUITY**

ALL CITY PLAN RECOMMENDATIONS THAT ADVANCE RESILIENCE AND E	QUITY BY ELEMENT (CONT.)	
Other Plans, Studies, Reports Key	Type of Resilience/Equity Key	
CAP Climate Action Plan  SLR Sea Level Rise Strategy  VRA All Hazards Vulnerability and Risk Assessment CTP Citywide Transportation Plan	EQ Equity  \$ Social Resilience  E Ecological Resilience  C Climate Resilience  F Flooding Resilience	
ENGAGEMENT		
Dedicate independent funding and resources for all departments to increase accessibility and promote community integration in planning and other decision-making processes; including additional resources to expand in-house communications capacity.	TYPE OF RESILIENCE/EQUITY EQ OTHER PLANS, STUDIES, REPORTS	
Establish mechanisms to coordinate engagement, education and outreach efforts across all departments.	TYPE OF RESILIENCE/EQUITY EQ OTHER PLANS, STUDIES, REPORTS	
Invest in technology and other tools to expand access to public meetings and ongoing planning efforts.	TYPE OF RESILIENCE/EQUITY EQ OTHER PLANS, STUDIES, REPORTS	
Increase the city's capacity to consistently provide materials and information in both English and Spanish, and to proactively arrange English to/from Spanish interpretation for public meetings.	TYPE OF RESILIENCE/EQUITY EQ OTHER PLANS, STUDIES, REPORTS	
Continue to research and diversify data sources to be data smart thus supporting staff when formulating policy, processes and ordinance development.	TYPE OF RESILIENCE/EQUITY EQ OTHER PLANS, STUDIES, REPORTS	
Develop strategies to ensure transparency and accountability for the implementation of plan recommendations, including a methodology to communicate progress for recommendations put forth in all sections of the City Plan.	TYPE OF RESILIENCE/EQUITY EQ OTHER PLANS, STUDIES, REPORTS	
HOUSING		
Continue to fully implement recommendations from the Housing for a Fair Charleston Report.	TYPE OF RESILIENCE/EQUITY EQ, S, E, C, F	
	OTHER PLANS, STUDIES, REPORTS HFC, HIAP	

OUSING (CONT.)	
continue to support creation of senior and affordable senior housing in all	TYPE OF RESILIENCE/EQUITY EQ, S
areas of the city.	OTHER PLANS, STUDIES, REPORTS HFC, HIAP
Create incentives and policies to increase available housing stock, especially affordable housing stock, through reuse and rehabilitation of existing buildings.	TYPE OF RESILIENCE/EQUITY EQ. S
	OTHER PLANS, STUDIES, REPORTS HFC, HIAP
Implement policies and allocate resources to reduce regulatory barriers that	TYPE OF RESILIENCE/EQUITY EQ. S
hinder development of affordable housing and disproportionately burden lower-income and vulnerable communities, including: expedited review and permitting, reduced fees, affordable materials standards, flexibility for design and architectural standards when appropriate, and allocating staff devoted to shepherding projects through the development process.	OTHER PLANS, STUDIES, REPORTS HFC, HIAP
Pursue strategies (incentives, policies and educational programs) to encourage landlord participation in rental assistance and other community housing programs; and establish a rental registration program.	TYPE OF RESILIENCE/EQUITY EQ, S
	OTHER PLANS, STUDIES, REPORTS HFC, HIAP
Allocate dedicated resources and staff to assist lower-income homeowners and	TYPE OF RESILIENCE/EQUITY EQ. S
African-American owners of historic homes to retain, reinvest, and redevelop their properties to increase the amount of Naturally Occurring Affordable Housing stock.	OTHER PLANS, STUDIES, REPORTS HFC, HIAP
Strongly encourage development of housing in compatible mixed-use and	TYPE OF RESILIENCE/EQUITY EQ. S
mixed-income (market rate and subsidized units mixed together within the same development) neighborhoods and in close proximity to parks, bicycle and pedestrian facilities, public transit, schools, grocery stores, job centers and civic uses. Incentivize transit-oriented development and affordable housing development along the future Low Country Rapid Transit route and other key public transit corridors.	OTHER PLANS, STUDIES, REPORTS HFC, HIAP
Any future increases to maximum residential densities within the zoning code	TYPE OF RESILIENCE/EQUITY EQ. S
should be conditional on the basis that a certain percentage of new units be reserved for affordable housing.	OTHER PLANS, STUDIES, REPORTS HFC, HIAP
Create a dedicated funding stream for affordable housing development	TYPE OF RESILIENCE/EQUITY EQ. S
through zoning and other planning tools.	OTHER PLANS, STUDIES, REPORTS HFC, HIAP

tiver 1 varies, Star	Other Plans, Studies, Reports Key		Type of Resilience/Equity Key	
CAP Climate A			Dutch Dialogues Land and Water Analysis	EQ Equity S Social Resilience
	ls Vulnerability and Risk Assessment	HIAP	Health in All Policies	E Ecological Resilience  C Climate Resilience  F Flooding Resilience
OUSING (CON	г.)			
Expand incentives for affordable housing developments in more base zoning districts, including unit density bonuses, reduced setbacks and lot sizes, and reduced or eliminated parking minimums when located in proximity to public transit. Incorporate a tiered incentive structure for affordable housing projects based on type and level of affordability provided and geographic location, prioritizing City-funded projects.		TYPE OF RESILIENCE/EQUITY EQ, S  OTHER PLANS, STUDIES, REPORTS HFC, HIAP		
Expand partnership with the Charleston Redevelopment Corporation (Palmetto Community Land Trust) and establish a land bank for future affordable housing development.		TYPE OF RESILIENCE/EQUITY EQ, S  OTHER PLANS, STUDIES, REPORTS HFC, HIAP		
Adopt policies to increase housing security for existing residents in areas at risk of displacement; including policies tailored to preserving historic African American settlement communities.		sk of displacement; including policies tailored to preserving historic African		TYPE OF RESILIENCE/EQUITY EQ, S OTHER PLANS, STUDIES, REPORTS
		HFC, HIAP		
AND USE				
	f highest land around the city for opment, especially areas around			TYPE OF RESILIENCE/EQUITY F, C
transit corridors.			OTHER PLANS, STUDIES, REPORTS DD, LWA, SLR	
Reduce densities on low-lying areas vulnerable to flooding, and eliminate development in future marsh migration areas. Adapt and defend structures currently in these areas wherever feasible.		TYPE OF RESILIENCE/EQUITY F, C, E		
		OTHER PLANS, STUDIES, REPORTS DD, LWA, SLR, VRA		
Pursue further studies of middle ground areas (between Tidal Flood Risk and High Ground Zones) and develop land use strategies based on analysis of individual drainage basins and stormwater easements.		TYPE OF RESILIENCE/EQUITY F, C, E		
		OTHER PLANS, STUDIES, REPORTS DD, LWA, SLR, VRA		
Develop proactive measures to educate property owners and potential developers as to parcel elevation, areas of known flooding, drainage basins, soil types and		TYPE OF RESILIENCE/EQUITY		
				E, C, F

AND USE (CONT.)	
Underscore responsibility of effective water management on higher ground of the city to better protect middle and lower ground downstream.	TYPE OF RESILIENCE/EQUITY F, C, E
the city to better protect initiale and lower ground downstream.	OTHER PLANS, STUDIES, REPORTS DD, LWA, SLR, VRA
Encourage use of green stormwater infrastructure including clusters of trees,	TYPE OF RESILIENCE/EQUITY S, E, C, F
use of pervious surfaces, green roofs, etc.	OTHER PLANS, STUDIES, REPORTS DD, LWA, SLR, VRA, TOS, CAP
Further limit fill-and-build construction methods in areas vulnerable to future flooding and potential marsh migration.	TYPE OF RESILIENCE/EQUITY E, C, F
	OTHER PLANS, STUDIES, REPORTS DD, LWA, SLR
Encourage, walkable, efficient neighborhood patterns that support connectivity, mobility and health through development regulations and incentives.	TYPE OF RESILIENCE/EQUITY EQ, S, E, C, F
	OTHER PLANS, STUDIES, REPORTS DD, LWA, SLR, VRA, CTP, HIAP
Create a new zoning ordinance that is based on elevation, tied to the dynamic nature of sea level rise and other climate change implications, and that applies	TYPE OF RESILIENCE/EQUITY E, C, F
conservation design principles and other recommendations in this plan to all new and infill development.	OTHER PLANS, STUDIES, REPORTS DD, LWA, SLR, VRA
Support the Urban Growth Boundary (UGB) through land use regulations and incentives, continued coordination with adjacent jurisdictions and by	TYPE OF RESILIENCE/EQUITY EQ, S, E, C, F
protecting land outside the UGB via land acquisition, park development and conservation easements.	OTHER PLANS, STUDIES, REPORTS DD, LWA, SLR, VRA
Continue to work collaboratively with BCDCOG and North Charleston to provide for transit-oriented developments along the Lowcountry Rapid	TYPE OF RESILIENCE/EQUITY EQ, S, E, C, F
Transit Corridor.	OTHER PLANS, STUDIES, REPORTS DD, LWA, SLR, VRA, CTP, HIAP
Work with Charleston County to implement an overlay district for properties fronting along Ashley River Road between Magwood Drive and Church Creek	TYPE OF RESILIENCE/EQUITY E, C, F
to emphasize reduction of residential densities and encourage new business development along the corridor.	OTHER PLANS, STUDIES, REPORTS CTP, DD, LWA
Continue to improve collaboration with adjoining jurisdictions and existing	TYPE OF RESILIENCE/EQUITY
entitled developments to implement the recommendations of the City Plan Land and Water Analysis: to make the best use of high ground, limit use of low-lying areas, create compatible densities and increase connectivity.	E, C, F
	OTHER PLANS, STUDIES, REPORTS DD, LWA, SLR, VRA

Other Plans, Studies, Reports Key		Type of Resilience/Equity Key	
SLR Sea Level Rise Strategy	DD Dutch Dialogues  NA Land and Water Analysis  AP Health in All Policies	EQ Equity  S Social Resilience  E Ecological Resilience  C Climate Resilience  F Flooding Resilience	
AND USE (CONT.)			
Continue research and outreach efforts with African-American Settlement Communities to ensure future development and land use recommendations are in concert with communities' goals.		TYPE OF RESILIENCE/EQUITY EQ. S  OTHER PLANS, STUDIES, REPORTS	
NATURAL RESOURCES			
Develop policies and processes to amplify environmental justice considerations in land use, infrastructure and natural resources planning; including the prioritization of environmental justice communities in improvements to the environment and analysis of potential negative impacts of projects on environmental justice communities.		TYPE OF RESILIENCE/EQUITY EQ, S, E, C, F	
		OTHER PLANS, STUDIES, REPORTS CAP	
Develop a Greenbelt prioritization plan and work with surrounding jurisdictions to preserve more green spaces, particularly along the Urban Growth Boundary.		TYPE OF RESILIENCE/EQUITY S, C, E, F	
		OTHER PLANS, STUDIES, REPORTS TOS, LWA, DD, CAP, SLR	
Support land conservation around the edges of the specifically along the Brownswood Road corridor ar		TYPE OF RESILIENCE/EQUITY E, C	
and Plow Ground Roads on Johns Island; along southern parts of Folly Road on James Island; and areas adjacent to the UGB in West Ashley and the Wando area on the Cainhoy Peninsula.		OTHER PLANS, STUDIES, REPORTS TOS, LWA, DD, CAP, SLR	
Continue to provide and expand the parks system to include large and small parks and Promote equitable access and safe alternative connectivity to green spaces and water around the City.		TYPE OF RESILIENCE/EQUITY EQ, S, E, C	
		OTHER PLANS, STUDIES, REPORTS TOS, CAP, HIAP	
Dedicate staff and resources to support collaboration between Stormwater Management, Parks and Planning to oversee preservation, creation and maintenance of green infrastructure.		TYPE OF RESILIENCE/EQUITY E, C, F	
		OTHER PLANS, STUDIES, REPORTS TOS, LWA, DD, SLR	
Increase incentives and educational opportunities for residents to increase and maintain green infrastructure on their properties.		TYPE OF RESILIENCE/EQUITY EQ, S, E, C, F	
		OTHER PLANS, STUDIES, REPORTS TOS, LWA, DD, CAP, HIAP	

NATURAL RESOURCES (CONT.)	
Implement recommendations of the Trees to Offset Stormwater study including updating the City's Tree Protection Ordinance to preserve clusters of trees during	TYPE OF RESILIENCE/EQUITY EQ, S, E, C, F
the development process, track and increase tree canopy percentages around the city, and prioritize underserved areas or areas with aging inventory for tree planting.	OTHER PLANS, STUDIES, REPORTS TOS, LWA, DD, CAP, HIAP
Continue to promote planning and zoning policies that align with the "living with water approach" outlined in the Dutch Dialogues Charleston study,	TYPE OF RESILIENCE/EQUITY S, E, C, F
including encouraging the use of green infrastructure in landscaping practices and stormwater management. Green infrastructure includes features such as such as bio-swales, porous pavements, raingardens, wetland buffers and other practices that leave existing natural features and ecosystems undisturbed.	OTHER PLANS, STUDIES, REPORTS TOS, LWA, DD, CAP, SLR
Ensure land development regulations adequately protect the city's farms, prime soils for farming, natural resources and rural areas.	TYPE OF RESILIENCE/EQUITY S
	OTHER PLANS, STUDIES, REPORTS HIAP
Create incentives for the use of conservation easements, including developing a toolkit for green space preservation.	TYPE OF RESILIENCE/EQUITY S, E, C, F
	OTHER PLANS, STUDIES, REPORTS TOS, LWA, DD, CAP, VRA
Implement land use and transportation planning strategies to account for marsh and wetland migration due to sea level rise; including vegetated	TYPE OF RESILIENCE/EQUITY E, C, F
buffers to allow space for the marsh or wetland to migrate and restricting development and roadways in tidal flood risk zones.	OTHER PLANS, STUDIES, REPORTS TOS, LWA, DD, CAP, SLR
RESILIENCE / EQUITY	
Work with other city departments to implement the recommendations in the All Hazards and Vulnerability Risk Assessment, Sea Level Rise Strategy, Climate	
Action Plan, Trees to Offset Stormwater and Dutch Dialogues Charleston.	OTHER PLANS, STUDIES, REPORTS
Update the Downtown Plan to fully implement recommendations from various plans and studies that address flood protection, new development	
and redevelopment, and tourism management.	OTHER PLANS, STUDIES, REPORTS DD, LWA, SLR
spand incentives for sustainable construction and renewable energy via the ning code, such as building certification programs like Charleston RISES.	TYPE OF RESILIENCE/EQUITY F, C, E
	OTHER PLANS, STUDIES, REPORTS CAP
Collaborate with regional and state partners to increase preservation and restoration of saltwater ecosystems like our marshes and wetlands as these are	TYPE OF RESILIENCE/EQUITY F, C, E
key carbon sequestering assets	OTHER PLANS, STUDIES, REPORTS CAP, DD, LWA, SLR

Other Plans, Studies, Reports Key		Type of Resilience/Equity Key
CAP Climate Action Plan  SLR Sea Level Rise Strategy  VRA All Hazards Vulnerability and Risk Assessment  CTP Citywide Transportation Plan	DD Dutch Dialogues  LWA Land and Water Analysis  HiAP Health in All Policies	EQ Equity  S Social Resilience  E Ecological Resilience  C Climate Resilience  F Flooding Resilience
ESILIENCE/EQUITY (CONT.)		
Create design guidelines for renewable energy standards in the historic district, with measures in place to prevent placing additional burdens on lower-income households.		TYPE OF RESILIENCE/EQUITY S, C, E, EQ  OTHER PLANS, STUDIES, REPORTS CAP
Reduce emissions to 50% below 2018 levels by 2030 to mitigate the city's impact on climate change.		TYPE OF RESILIENCE/EQUITY C OTHER PLANS, STUDIES, REPORTS CAP
Reduce emissions to net zero by 2050.		TYPE OF RESILIENCE/EQUITY C OTHER PLANS, STUDIES, REPORTS CAP
Work with other City departments to implement recommendations from the Special Commission on Equity, Inclusion and Racial Conciliation, when finalized.		TYPE OF RESILIENCE/EQUITY EQ. S OTHER PLANS, STUDIES, REPORTS
Develop and fund program to address lack of access to Federal Emergency Management Agency (FEMA) and other disaster assistance aid for lower income households and heirs properties.		TYPE OF RESILIENCE/EQUITY EQ, E, C, F
		OTHER PLANS, STUDIES, REPORTS SLR
Create more incentives that empower individual property owners and small-scale developers to play a more prominent role in efforts to increase resiliency and affordability in the Charleston area.		TYPE OF RESILIENCE/EQUITY EQ, E, C, F
		OTHER PLANS, STUDIES, REPORTS
Continue to study the effects of extreme heat and pursue policies that protect people in all areas of the city from extreme heat, especially lower income and elder community members who may have more limited ability to adapt.		TYPE OF RESILIENCE/EQUITY EQ. S, C
		OTHER PLANS, STUDIES, REPORTS HIAP

RESILIENCE/EQUITY (CONT.)	
Continue to promote urban agriculture and community gardens, especially in	TYPE OF RESILIENCE/EQUITY S, C, E, EQ
areas qualifying as food deserts.	OTHER PLANS, STUDIES, REPORTS HIAP
TRANSPORTATION	
Continue to implement recommendations from the Citywide Transportation Plan.	TYPE OF RESILIENCE/EQUITY EQ. S, C, F
Convinue to implement recommendations from the City wide Transportation Franc	OTHER PLANS, STUDIES, REPORTS CTP, HIAP
Work with BCDCOG and neighboring jurisdictions to advance existing plans	TYPE OF RESILIENCE/EQUITY EQ, S, C, F
to provide water taxi/high-speed ferry systems as a public transit option.	OTHER PLANS, STUDIES, REPORTS CTP, HIAP
Advocate for strategies to improve flow and safety of traffic in heavily congested roadways (such as Highway 61 in West Ashley), including the installation of	TYPE OF RESILIENCE/EQUITY S, E
advanced traffic control devices and other methods that can fit within existing rights-of-way, and that prioritize walkability and preservation of natural and cultural resources.	OTHER PLANS, STUDIES, REPORTS CTP
Work to improve access and comfort of the CARTA stations in the City of	TYPE OF RESILIENCE/EQUITY EQ, S
Charleston through connections with neighborhoods and expanding the street furniture and other amenities provided at stops.	OTHER PLANS, STUDIES, REPORTS CTP, HIAP
Promote policies and creative incentives to encourage wider, multi-use paths where new pathways are being considered, or widening when feasible for existing	TYPE OF RESILIENCE/EQUITY S
pathways; and promote design guidelines that adhere to best practices in bike and pedestrian safety (i.e. separation from vehicular traffic and dedicated lanes for cyclists and pedestrians when feasible).	OTHER PLANS, STUDIES, REPORTS CTP, HIAP
Connect more schools and job centers to neighborhoods with pedestrian pathways and multi-use pathways; and expand opportunities for bike share	TYPE OF RESILIENCE/EQUITY S, C, E
systems.	OTHER PLANS, STUDIES, REPORTS CTP, CAP, HIAP
Create a permanent funding stream for construction and maintenance of sidewalks and other pedestrian and cyclist infrastructure citywide	TYPE OF RESILIENCE/EQUITY S, C, E
	OTHER PLANS, STUDIES, REPORTS CTP, CAP, HIAP
Work with CARTA to support increased ridership and consequently improved transit options, including encouraging employer-sponsored transit programs and	TYPE OF RESILIENCE/EQUITY EQ, S, E, C
increased mobility options for seniors and individuals with disabilities	OTHER PLANS, STUDIES, REPORTS CTP, CAP, HIAP

#### **RESILIENCE AND EQUITY**

TRANSPORTATION (CONT.)		
Continue to promote complete streets in new or redesigned roadways, providing for safe and alternative means of transportation; especially in areas designated	TYPE OF RESILIENCE/EQUITY EQ. S, C	
as Neighborhood Edge.	OTHER PLANS, STUDIES, REPORTS CTP, CAP, HIAP	
Advocate for additional rapid transit routes along Sam Rittenberg Corridor, Sayannah Highway, Glenn McConnell Parkway, Folly Road, and Clements	TYPE OF RESILIENCE/EQUITY S, E, C	
Ferry Road.	OTHER PLANS, STUDIES, REPORTS CTP, CAP, HIAP	
Coordinate with Charleston County, Berkeley County and the SC Department of Transportation to retrofit existing and design new public rights-of-ways to		
increase mobility during flooding events and maximize opportunities to intercept, infiltrate, store and drain water.	OTHER PLANS, STUDIES, REPORTS CTP, DD, LWA	
Expand publicly accessible electric vehicle (EV) charging infrastructure, especially at ride share, mobility hubs, on-street peninsula access and City		
parking facilities and explore the creation of requirements for EV charging infrastructure in new development.	OTHER PLANS, STUDIES, REPORTS CTP, CAP, HIAP	

# **GLOSSARY OF KEY TERMS**

Words can often have multiple meanings and planning language can be full of confusing jargon. Key terms defined throughout the plan and in the City Plan Glossary are intended to bring clarity and inform readers of the specific definition being used in the context of the City Plan. The sources for the key terms are cited at the end of the glossary. If they are not sourced, the definition was created by City staff or adapted from a dictionary definition.

**100 YEAR FLOODPLAIN** refers to areas with a 1% or greater chance of shallow flooding each year, with an average depth ranging from 1 to 3 feet.

**AFFORDABILITY GAP** refers to the total deficit of housing stock that is affordable to households earning within a specific income range.

AFFORDABLE HOUSING is used in a variety of contexts with various definitions. Affordability is a relative term dependent on income. For the purposes of this analysis, the blanket term "affordable housing" refers to all housing affordable (priced at or under 30% pre-tax household income) to households making from 0% to 120% of the Area Median Income. This includes housing across the spectrum of affordability, from low-income to workforce housing.

AREA MEDIAN INCOME is the number determined by the U.S. Department of Housing and Urban Development (HUD) that represents the median household income for a specific region. The City Plan will use the AMI for the Greater Charleston Region because HUD does not provide an AMI for the City of Charleston itself. That figure is \$81,000 per year for a family of four.

RAIN GARDENS are planted depressions of varying sizes and degrees designed to retain or detain stormwater before it is infiltrated or discharged downstream.

**CAPITAL IMPROVEMENTS** include construction of new City facilities or infrastructure; or updates to existing City facilities or infrastructure.

**CARBON FOOTPRINT** refers to the amount of carbon dioxide and other carbon compounds that a particular person or group emits due to consumption of fossil fuels.

**CLIMATE CHANGE** refers to the changes in climate patterns that are primarily attributed to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.

new term that has emerged as climate change has begun to have impacts on the real estate market. It describes the process of wealthier, often whiter populations moving to areas less exposed to the effects of climate change that were previously occupied by lower-income residents and communities of color, thus exacerbating displacement and disparities.<sup>11</sup>

**COMMUNITY ENGAGEMENT** (also known as Civic Engagement) is the collaboration between the city and its community members around specific opportunities to shape policies, plans and programs.

**COMMUNITY FACILITIES** are facilities and infrastructure that provide for the health and recreational needs of a community's residents.

**COMMUNITY INTEGRATION** is when systems and processes support regular opportunities for feedback and ongoing partnership between city staff, city leadership and community in the creation of policies, plans and programs.

COMMUNITY MEMBERS refers to all individuals that are a part of the greater Charleston community, including areas outside of the plan area, whether that be as a permanent resident, a business or property owner, student or visitor.

**COMPATIBLE USES** are uses that are complimentary to each other when in close proximity, as opposed to incompatible uses which present environmental or other problems such as noise, odor, safety and pollution.

**COMPLETE STREETS** provide supports and amenities for all modes of transportation, including walking, cycling, and vehicles. They are designed to be public spaces that meet mobility needs and promote equitable access.

**CONNECTIVITY** refers to street connections that provide travelers, whether by car, bicycle or by foot, safe and efficient opportunities for trip-making by multiple options.

**CONSERVATION DESIGN** refers to innovative site planning techniques that restrict buildings, structures, and impervious surfaces within specific areas of a development to preserve the most valuable natural features of a site and increase the amount of common open space.

**COST OF LIVING** includes the amount of money a household needs to cover basic expenses such as housing, utilities, transportation, healthcare, food and other necessities.

**COST-BURDENED HOUSEHOLDS** are households that spend more than 30% of their annual gross income on housing costs.

**DEED-RESTRICTED** in this context means that the housing costs are subsidized through federal, state, and/or local (private or public) funding sources and residents must meet income eligibility requirements to purchase or rent.

**DEMOGRAPHICS** refers to the socioeconomic profile of a population according to factors such as employment, education, income, race, ethnicity, age, gender, household size and more.

**DENSITY (POPULATION DENSITY)** is an indicator of how crowded, or spread-out, a population is. In land use planning the most common expression is the number of dwelling units per acre (ex. 1.5 du/ac is a low density area and 26.4 du/ac is a high density area).

**DISPARITY** is a difference in area of life (such as education, wealth, home and business ownership, education and health) that results in one group having a disproportionate burden of negative life outcomes.

**DISPLACEMENT** is when long-term residents are no longer able to stay in their communities because of rising housing costs, disasters and/or other factors.

DIVERSITY refers to psychological, physical, and social differences that occur among any and all individuals; including but not limited to race, ethnicity, nationality, religion, socioeconomic status, education, marital status, language, age, gender, sexual orientation, mental or physical ability and learning styles.iii

**DWELLING UNIT** is a legal term often used in land use to describe any room or group of rooms located within a structure and forming a single habitable unit with facilities that are used, or are intended to be used, for living, sleeping, cooking and eating.

**ECONOMIC EQUITY** or inclusive growth, is the full inclusion of all groups in an area's economic growth and prosperity, regardless of socioeconomic status; which requires addressing economic injustices at the root causes and creating opportunities for all.

**ECOSYSTEM** refers to the interrelationships and interaction among plants, animals and other organisms, as well as weather and landscape within a particular geographic area.

**ENVIRONMENTAL JUSTICE** is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.<sup>iv</sup>

### **ENVIRONMENTAL JUSTICE COMMUNITIES**

are defined by the US Environmental Protection Agency (EPA) as communities with disproportionate exposure to environmental hazards and increased vulnerability to said hazards.

**EQUITABLE ACCESS** means that public spaces and amenities, and opportunities for participation, are designed in such a way that responds to the needs of all community members and ensures fair access regardless of race or socioeconomic status.

EQUITY (VS. EQUALITY) involves understanding and giving people what they need to enjoy full, healthy lives. Equality, in contrast, aims to ensure that everyone gets the same things in order to enjoy full, healthy lives. The principle of equity acknowledges that there are historically underserved and underrepresented populations, and that fairness regarding these unbalanced conditions is needed to assist equality in the provision of effective opportunities to all groups.

**EQUITY LENS** is the process of paying disciplined attention to race, ethnicity and other socioeconomic characteristics that are predictors of disparate outcomes, while analyzing problems, looking for solutions, and defining success. Application of an equity lens illuminates disparate outcomes,

patterns of disadvantages and root causes. vi of color to make way for new residents who

**EXCLUSIONARY ZONING** includes zoning regulations that prevent the location of housing that is affordable to lower- and moderate-income communities out of certain neighborhoods through land use and building code requirements. Though exclusionary zoning is almost never explicitly discriminatory, it results in the perpetuation of racial and socioeconomic segregation.

**FAMILY** refers to the householder and all (one or more) other people living in the same household who are related to the householder by blood, marriage, or adoption (according to the US Census Bureau).

FOOD DESERTS are defined by the US
Department of Agriculture (USDA) as areas
in which a substantial number or share of
residents have low levels of access to retail
outlets selling healthy and affordable foods.

of the City Plan which brings together various aspects of the plan into a visual guide for land use and development in the city. The map is an articulation of the community's vision of how the city develops, where it is appropriate to expand, where we should scale back and, while not a zoning map, it helps the community make land use and growth management decisions now and into the future. Intended as a general guide rather than a regulatory tool, the map is not parcel-specific and boundaries not exact.

GENTRIFICATION was defined as "the loss of neighborhood diversity through the displacement and exclusion of schools, churches, affordable housing and traditional neighborhood-based businesses" in the 2001 City of Charleston Gentrification Task Force Report to City Council. VII The Avery Institute defines gentrification as "the process of dismantling existing urban neighborhoods and displacing poor people

of color to make way for new residents who are mostly white and wealthier." viii

**GREENHOUSE GAS EMISSIONS** refers to the production of any gaseous compound that traps and holds heat in the atmosphere, or creates the "greenhouse effect."

GREEN INFRASTRUCTURE is defined in the City of Charleston Zoning Ordinance as an adaptable term used to describe an array of materials, technologies, and practices that use natural systems or engineered systems that mimic natural processes to enhance overall environmental quality and provide utility services. As a general principal, green infrastructure techniques use soils and vegetation to infiltrate, evapotranspirate, and/or recycle stormwater runoff.

**GREEN SPACE** is an area of grass, trees, or other vegetation set apart for recreational or aesthetic purposes in an otherwise urban environment.

GULLAH GEECHEE people are decendants of Africans who were enslaved on the rice, indigo and Sea Island cotton plantations of the lower Atlantic coast. The nature of their enslavement on isolated island and coastal plantations created a unique culture with deep African retentions that are clearly visible in the Gullah Geechee people's distinctive arts, crafts, foodways, music, and language. Many Gullah Geechee people of the Lowcountry also maintain that some ancestors of Gullah Geechee people arrived prior to European colonists and were never enslaved.

**HAZMAT** is the abbreviation for hazardous materials, which is defined by the National Oceanic and Athmospheric Administration (NOAA) as the substances that pose a reasonable risk to health, property or the

environment such as toxic chemicals, fuels, nuclear waste products, and biological, chemical and radiological agents.

HEIRS PROPERTY refers to land that has been passed down without a will and is still titled in the name of someone who died more than ten years ago. Owning land "in common" — as heirs — is unstable and puts family land at high risk for loss. Also, owners of heirs property cannot obtain a mortgage or loan or qualify for assistance programs to renovate homes, recover after disasters or improve the family land.xi

#### **HISTORICALLY UNDERREPRESENTED** refers

to when a group has been inadequately represented in important research, as well as in planning and policy decisions, as a result of historical institutional discrimination and other factors that have denied or limited access to those groups.

**HOUSEHOLD** refers to all of the people who occupy the same housing unit. This includes families with children, married and unmarried couples, roommates living together, or individuals living alone.

**HOUSEHOLD INCOME** is the combined gross cash income of all members of a household, defined as a group of people living together, who are 15 years or older.

**HOUSING UNIT** means a house, apartment, group of rooms, or a single room intended for occupancy as separate living quarters.

IMPERVIOUS SURFACE in the City of Charleston Zoning Ordinance is defined as a surface which is compacted or covered with material that is resistant to infiltration by water, including, but not limited to, most conventional surfaced streets, roofs, sidewalks, parking lots, and other similar structures.

INCLUSIVE OUTREACH AND PUBLIC ENGAGEMENT is when outreach and engagement processes are inclusive of people of diverse races, cultures, gender identities, sexual orientations and socioeconomic status.xii

**INDIGENOUS PEOPLES** refers to those peoples with pre-existing sovereignty who were living together as a community prior to contact with settler populations.xiii

**INFILL DEVELOPMENT** refers to the development of vacant or under-developed parcels within existing urban and suburban areas that are already largely developed.

INFRASTRUCTURE describes the basic physical structures and systems that support the basic needs of a community, such as transportation systems, communication networks, sewage, water and electric.

JOB CENTERS are areas that are primarily commercial, with a specific focus on industries that generate a wide variety of jobs, such as manufacturing, warehousing, office, and some commercial. Job centers can also serve as incubators for small and entrepreneurial businesses.

**LAND USE** is the term used to describe the human use of land. It represents the economic and cultural activities (e.g. agricultural, residential, industrial, recreational, etc.) that are practiced at a given place.xiv

**LAST MILE** refers not to a specific distance, but the connection between a transportation hub and the traveler's ultimate destination (and vice versa).

LGBTQIA stands for Lesbian, Gay, Bisexual, Transgender, Queer, Intersex and Asexual and is often used as an umbrella term to refer to the community of individuals identifying with one or more of

#### **GLOSSARY OF KEY TERMS**

these adjectives/experiences.

LISTENING SESSION refers to a meeting with community members where there is minimal communication from city staff or other leadership and where the primary goal is for participants to have an opportunity to share their stories and be heard.

**LIVING WAGE** is the hourly rate that an individual in a household must earn to support his/her/theirself and their family, assuming the sole provider is working full-time (2,080 hours per year).

**MARSH MIGRATION** is when the existing marsh gradually shifts inland onto previously dry land as a result of sea level rise.

#### **MEANINGFUL INVOLVEMENT** is when:

1) potentially affected community residents and communities most affected by inequities have appropriate and culturally responsive opportunities to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public's contribution can influence the agency's or jurisdiction's decision; (3) the concerns of all participants involved will be considered in the decision-making process (and measures will be taken to document how they were or were not considered).xv

MEDIAN HOUSEHOLD INCOME is the household income for the median or middle-household in a region. If you were to line up each household in the area in order from lowest to highest income, the household in the middle of the line would be the median household. The amount of money that household earns would be the median household income.

MEDIAN WAGE is the middle wage (what someone is paid for work) in a region, based on annual wage reports. If you were to line up each wage earned in order from lowest to highest, the wage amount in the middle of the line would be the median wage.

**MIGRATION** is when an individual or household move their place of residence from one area to another.

"MISSING MIDDLE" HOUSING refers to the various housing options between the two extremes of single-family (detached) housing and mid-rise apartments, including housing such as duplexes, triplexes, condominiums and townhomes – how Americans used to build and live before the automobile and other financing structures favored constant construction and suburban sprawl.

**MITIGATION** is the action of reducing the severity, seriousness or painfulness of something; to reduce its effects.

MIXED-USE CENTERS is an area where there is a mix of residential and commercial uses, and sometimes cultural, institutional and entertainment uses as well.

**MOBILITY** is defined as the potential for movement and the ability to get from one place to another using one or more modes of transport to meet daily needs.

**MULTI-MODAL** refers to having access to multiple ways (modes) to move around an area – including by personal vehicle, bike, transit, walking and other modes.

NATURALLY OCCURRING AFFORDABLE HOUSING (NOAH) refers to housing that is affordable without a subsidy to households earning up to 120% of the AMI.

**NET ZERO** refers to achieving an overall balance between emissions produced and emissions taken out of the atmosphere.

NON-BINARY in the context of this text is referring to all other gender identities not included in the Census-provided gender categories of male and female.

**PARTICIPATION** is the act of joining or taking part in an event or activity.

**PRIORITY INVESTMENT** informs funding for facilities and infrastructure to meet the city's existing needs and future demands.

**PUBLIC RIGHT-OF-WAY (ROW)** refers to the area on, below or above a public roadway, bicycle lane, sidewalk or other structure that is set aside expressly for the provision and maintenance of transportation infrastructure.

RACIAL EQUITY is the condition where one's race identity has no influence on how one fares in society. Race equity is one part of race justice and must be addressed at the root causes and not just the manifestations. This includes the elimination of policies, practices, attitudes, and cultural messages that reinforce differential outcomes by race.xvi

RECONSTRUCTION refers to the period after the Civil War, 1865-1877, during which formerly enslaved African-Americans made considerable economic and political gains. It ended after years of political unrest and voter intimidation spearheaded by the Ku Klux Klan restored political power to a white supremacist political majority in Southern States.xvii

**REDLINING** refers to the practice by the Federal Housing Administration in the 1930's which refused to insure mortgages in and

near African-American neighborhoods, while at the same time subsidizing construction of subdivisions with racial covenants that excluded any non-white household.xviii

**RENEWABLE ENERGY** is energy created from source that is not depleted when used, such as wind or solar power.

**RESIDENT** refers to any individual who resides in the plan area, including those who are currently unhoused.

**RESILIENCE** can be defined as the ability for a community to overcome challenges confronting it and to survive through periods of hardship.xix

**SEA LEVEL RISE** is an increase in the level of the world's oceans due to effects of global warming.

**SETTLEMENT COMMUNITIES** were established during the Reconstruction years (1865-1877) and through the early 20th Century by freed Gullah Geechee people and their descendants, defined by their ancestral connections to the land and their shared history, identity, and cultural institutions such as schools, churches, and businesses.

**SOCIOECONOMIC** refers to the social class of an individual or group based on a combination of education, income and occupation.

**STAKEHOLDERS** includes all individuals or organizations that have an interest or concern in decisions being made, including those that may not be a current resident.

**STORM SURGE** is the abnormal rise in seawater level caused solely by a storm's winds pushing water onshore, measured as the height of the water above the normal predicted tide.

#### **GLOSSARY OF KEY TERMS**

**STORMWATER** is water that accumulates as **TREE CANOPY COVER** is defined by the a result of rain or other precipitation and Runoff is created when stormwater flows over ground surfaces that do not allow the water to soak into the ground.

STREET TREES are trees that are planted within the public right of way.

**SUSTAINABLE DEVELOPMENT** is a concept that describes development that meets the needs of a community while simultaneously sustaining the natural resources and ecosystems on which the economy and society depend.

**TIDAL FLOODING** refers to flooding caused in low-lying areas as a result of the natural ebb and flow of tides. Tidal flooding can happen independently of rain or storm events.

TRADITIONAL BLOCK PATTERNS refers to the traditional (historic) patterns in which city blocks are shaped and arranged, including size, shape and surrounding street patterns.

TRANSIT-ORIENTED DEVELOPMENT is a style of development that emphasizes mass transportation as its main design feature. The developments tend to be higher intensity and density with lower personal vehicle parking counts. They are located along fixed mass transit routes such as bus rapid transit, rail lines, or water transit. Their size and types of uses can vary, though they usually focus on higher density living or high intensity of job center.

**TRANSPARENCY** is achieved when residents and other community members can access important information about how public business is being conducted and how public funds are being spent in a way that is readily available and easily understood.

US Department of Agriculture (USDA) as the layer of leaves, branches and stems that provide tree coverage of the ground when viewed from above.

**URBAN AGRICULTURE** includes production (beyond that which is strictly for home consumption or educational purposes), distribution and marketing of food and other products within the cores of metropolitan areas and at their edges.xx

URBAN GROWTH BOUNDARY (UGB) is a boundary line that surrounds the City of Charleston, discouraging suburban or urban growth in rural areas outside the UGB.

**VEGETATED BUFFERS** are planted sections of land situated between development and area of protection.

**WALKABILITY** is a measure for how friendly an area is to walking. Factors influencing walkability can include sidewalks, traffic conditions and crosswalks, among others.

**WATERSHED** is a land area that channels rainfall to creeks, streams and rivers, and eventually to outflow points such as reservoirs, bays and the ocean.xi

**WETLANDS** are classified by the U.S. Army Corps of Engineers as an area with hydrophytic (water-loving) plants, soils that support the growth of hydrophytic plants, and water (wetlands can sometimes be absent of standing water).

WETLAND BUFFER wetland buffer is a concentration of trees, shrubs, and other native plants and gradually sloping bank adjacent to a wetland.

**ZONING** refers to local government regulations that enforce standards for use and design of individual parcels.

- <sup>i</sup> FEMA Flood Zone Designations. Federal Emergency Management Agency (FEMA). Accessed May 2021. https://efotg. sc.egov.usda.gov/references/public/NM/FEMA\_FLD\_HAZ\_guide.pdf
- ii Beeman, Anna. 2019. "Climate Gentrification and Resilience Planning: What is at stake for at-risk communities?" Vibrant Environment Blog, Environmental Law Institute, September 18. https://www.eli.org/vibrant-environment-blog/climate-gentrification-and-resilience-planning-what-stake-risk-communities#:~:text=In%20some%20cases%2C%20such%20as.bv%20 lower%2Dincome%20residents%20and
- iii College of Charleston Community Assistance Program. Racial Equity Framework Glossary.
- iv "Environmental Justice." EPA. May 03, 2021. Accessed May 12, 2021. https://www.epa.gov/environmentaljustice.
- v The Final Report of the Special Commission on Equity, Inclusion and Racial Conciliation and the "Racial Equity Framework Glossary" provided by the College of Charleston Community Assistance Program
- vi Ibid.
- vii City of Charleston. 2001. "City of Charleston Gentrification Task Force Report to City Council." Charleston, SC.
- viii Patton, Stacey. 2017. The State of Racial Disparities in Charleston County, South Carolina, 2000-2015. Charleston, SC: Avery Research Center for African American History and Culture, The College of Charleston.
- ix "The Gullah Geechee People." Gullah Geechee Cultural Heritage Corridor Commission. Access May 2021. https://gullahgeecheecorridor.org/thegullahgeechee/
- x Interview with J. Martin-Carrington, Board Member of the Gullah Society.
- xi Adapted definition from the Center for Heirs Property.
- xii College of Charleston Community Assistance Program, Racial Equity Framework Glossary,
- xiii "Native American and Indigenous Peoples FAQs." UCLA Equity, Diversity and Inclusion. Accessed May 2021. https:// equity.ucla.edu/know/resources-on-native-american-and-indigenous-affairs/native-american-and-indigenous-peoplesfags/#whoareind
- xiv Land Use, US Environmental Protection Agency (EPA). Accessed May 2021. https://www.epa.gov/report-environment/ land-use
- xv College of Charleston Community Assistance Program. Racial Equity Framework Glossary.
- xvi Definitions were either directly copied or incorporated language from the "Racial Equity Framework Glossary" provided by the College of Charleston Community Assistance Program.
- xvii Foner, E.. "Reconstruction." Encyclopedia Britannica, September 10, 2020. https://www.britannica.com/event/Reconstruction-United-States-history
- xviii Silver, Christopher (1997), The Racial Origins of Zoning in American Cities. Thousand Oaks; Sage Publications, p. 23,
- xix Cox, R.W. and Miller, D.Y. 2014. Governing the metropolitan region: America's new frontier. New York: M.E. Sharpe.
- xx Adapted from the American Planning Association, 2011.
- xxi What is a watershed? National Oceanic and Atmospheric Administration (NOAA). Accessed May 2021. https://oceanservice.noaa.gov/facts/watershed.html

## **APPENDIX**

Visit charlestoncityplan.com/view to view and download items in the Appendix or email cityplan@charleston-sc.gov to request hard copies.

### SUPPLEMENTARY DATA

Business License Clustering Retail Sales Chart October 2019-2020 ESRI Business Analyst Data 2020 Q4 Charleston Office Report Capital Improvement Plan Funding Sources

### **CITY PLAN ENGAGEMENT**

City Plan community survey City Plan Public Input by Element Community Engagement Reports (Combined)

### **CITY PLAN ANALYSIS REPORTS**

City Plan Land and Water Analysis Community Data Platforms Methods Summary Community Data Platforms Data Dictionary

## COMMUNITY ASSISTANCE PROGRAM (CAP)

Partnership Overview

Presentation: Defining Racial Equity in Comparable Cities' Plans Assessment of Racial Equity in Comprehensive Plans of Peer Cities Feedback on Draft Segments of City Plan (April 2021) Racial Equity Framework Glossary

# OTHER REFERENCED PLANS AND STUDIES

Climate Action Plan (2021)

All Hazards Vulnerability & Assessment (2020)

Housing and Community Development Consolidated Plan (2020)

Housing for a Fairer Charleston (2020)

Dutch Dialogues Report (2019)

Sea Level Rise Strategy (2019)

Citywide Transportation Plan (2018)

People Pedal Plan (2018)

Plan West Ashley (2018)

Trees to Offset Stormwater Study (2018)

The State of Racial Disparities in Charleston County, South Carolina 2000-2015 (2017)

Rethink Folly Road Report (2016)

Dupont Wappoo Community Plan (2016)

Walk Bike Berkeley-Charleston-Dorchester (BCD) (2016)

Johns Island Community Greenways Plan (2010)

Preservation Plan (2008)

Johns Island Community Plan (2007)

### SUPPLEMENTARY DATA

# **SUPPLEMENTARY DATA**

- 01 BUSINESS LICENSE CLUSTERING
- 02 RETAIL SALES CHART OCTOBER 2019-2020
- $\theta 3$  ESRI BUSINESS ANALYST DATA
- 04 2020 Q4 CHARLESTON OFFICE REPORT
- 05 CAPITAL IMPROVEMENT PLAN FUNDING SOURCES

### **CITY PLAN ENGAGEMENT**

# **CITY PLAN ENGAGEMENT**

- 06 CITY PLAN COMMUNITY SURVEY
- 07 CITY PLAN PUBLIC INPUT BY ELEMENT
- 08 COMMUNITY ENGAGEMENT REPORT (DECEMBER 2020)

### **CITY PLAN ANALYSIS REPORTS**

# **CITY PLAN ANALYSIS REPORTS**

- 09 CITY PLAN LAND AND WATER ANALYSIS
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**COMMUNITY ASSISTANCE PROGRAM (CAP)** 

# **COMMUNITY ASSISTANCE PROGRAM (CAP)**

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- 12 PARTNERSHIP OVERVIEW
- 13 PRESENTATION: DEFINING RACIAL EQUITY IN COMPARABLE CITIES' PLANS
- 14 ASSESSMENT OF RACIAL EQUITY IN COMPREHENSIVE PLANS OF PEER CITIES
- 15 FEEDBACK ON DRAFT SEGMENTS OF CITY PLAN (APRIL 2021)
- 16 RACIAL EQUITY FRAMEWORK GLOSSARY

#### OTHER PLANS AND STUDIES

# **OTHER PLANS AND STUDIES**

- 17 CLIMATE ACTION PLAN (2021)
- 18 ALL HAZARDS VULNERABILITY & ASSESSMENT (2020)
- 19 HOUSING FOR A FAIRER CHARLESTON (2020)
- 20 DUTCH DIALOGUES REPORT (2019)
- 21 SEA LEVEL RISE STRATEGY (2019)
- 22 CITYWIDE TRANSPORTATION PLAN (2018)
- 23 PEOPLE PEDAL PLAN (2018)
- 24 PLAN WEST ASHLEY (2018)
- 25 TREES TO OFFSET STORMWATER STUDY (2018)
- 26 RETHINK FOLLY ROAD REPORT (2016)
- 27 DUPONT WAPPOO COMMUNITY PLAN (2016)
- 28 JOHNS ISLAND COMMUNITY GREENWAYS PLAN (2010)
- 29 PRESERVATION PLAN (2008)
- $3\theta$  JOHNS ISLAND COMMUNITY PLAN (2007)